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ADDRESSES.

FORCED RESPIRATION.

An Address delivered before the Buffalo Medical and Surgical Association, January 5, 1891.

BY GEO. E. FELL, M.D., F.R.M.S.,

OF BUFFALO, N. Y.

LATE PRESIDENT OF THE AMERICAN SOCIETY OF MICROSCOPISTS, PROFESSOR OF PHYSIOLOGY AND MICROSCOPY MED. DEP'T NIAGARA UNIVERSITY, ETC.

It may be well to premise what I have to say by calling attention to the difference in the meaning of the terms used. We understand by *artificial respiration*, an artificial method of breathing for an individual; but since forced respiration has been used, with such remarkable results, it seems to me terms should be employed which would be distinctive, and some time ago I made a suggestion to the profession which seems to have been quite universally adopted, to the following effect:

Auto-respiration: respiration by the individual for himself.

Deep Respiration: forcible respiration by the individual himself.

Artificial Respiration: this we understand to be that produced by the methods which have been suggested by Sylvester, Howard, Marshall Hall and others, in which movements of the limbs of the patient and pressure are made so as to draw the air into the lungs. In many instances artificial respiration cannot be depended on to furnish a sufficient supply of air to the lungs.

Forced Respiration: those measures by which air is forcibly passed into the lungs. (I do not advocate forcibly withdrawing it, because I think it to be an unphysiological method.)

At the late Berlin Congress Professor Horatio C. Wood, of the University of Pennsylvania, the only American, I understand, who delivered an address before the Congress, spoke about John Hunter and others having devised an apparatus for the purpose of breathing for an individual where it was necessary to do so. I will quote from Professor Wood's address on "Anæsthesia" his remarks in this connection, which will indicate that some of the brightest lights of medicine have considered the subject of forced respiration, but have not demonstrated its value; but, through the failure of their efforts, rather relegated it to the field of impracticable methods.

The use of what may be called "forced" respiration by the physiologist so naturally suggested a similar practice in man, that the celebrated John Hunter invented for the purpose an apparatus which consisted of a bellows so constructed that when it was extended one compartment drew in air from the lungs, whilst the other drew air from the atmosphere; and when it was closed the process was reversed, the fresh air being thrown into the lungs, the foul air into the atmosphere. In 1867, Richardson, of London, invented an apparatus more elegant and portable, although identical in principal with that of John Hunter's; but I have not found that either Hunter or Richardson treated by forced artificial respiration an actual case of disease or poisoning. In 1875 (*Boston Medical Journal*, Vol. xxi.) Dr. John Ellis Blake reported a successful case of aconite poisoning, in which life was apparently saved, although there was no pulse for over three hours, by artificial respiration, with the use of oxygen. In this case Marshall Hall's method was at first used, but later a small rubber tube was connected directly with a copper reservoir of condensed oxygen, the other end of the tube terminating in a small nozzle, which was inserted in one nostril. Four hundred gallons of oxygen were thus used, but how far the force of the compressed gas was employed to dilate the lungs is not very clear; and it is somewhat doubtful whether this case should be considered as one of forced respiration. The first physician to use forced respiration in actual human poisoning, with a clear idea of its value and power, so far as my reading goes, was Dr. George E. Fell (International Medical Congress, Washington, 1877).

It is plain that the bellows constructed by John Hunter and by Richardson are unnecessarily complex and faulty in principle. There is no need whatever of drawing the air out of the fully filled lungs. Every physiologist knows that when the muscular system is completely paralyzed by woorari or even by death, that the chest-walls have sufficient elasticity to force air out of the lungs, and all ordinary laboratory apparatus for artificial respiration is based upon this fact. For forced artificial respiration in man, an ordinary bellows of proper size is all that is required for the motive power.

The real difficulty—the point to be especially investigated and studied—is as to the connection between the bellows and the lungs. Hunter and Richardson simply placed a tube in one nostril, closing firmly the other nostril and the mouth of the subject.

Dr. Fell at first used a tracheal tube, the insertion of which, of course necessitated the performance of tracheotomy. In one case, however, a simple mask covering the mouth and nostrils was a perfect success. I have had no opportunity of trying the apparatus on the living, but have made a series of experiments upon dead bodies, which have demonstrated that usually a face-mask is all that is necessary for the performance of artificial respiration. Before using the mask the tongue should be well drawn forward, and if necessary fixed in this position by

an ordinary piece of suture silk run through it, which can be held in the hand of the operator. If in any individual case the mask fails, an intubation tube may be introduced into the larynx. I do not believe that it is ever necessary to perform a tracheotomy.

Dr. Fell's apparatus consists of a pair of foot-bellows (the bellows have always been used by hand power), by which air is forced into a receiving chamber, which is connected with an apparatus for warming the air, and a valve which can be opened and shut by a movement of the finger. This valve in turn leads to the tracheal tube. When the valve is opened the air rushes through the chamber into the lungs and expands them; the finger is lifted, the valve shuts, the lungs contract; and so the respiration goes on. I have no doubt that this apparatus is efficient in practice, but it is open to the serious objection of being unnecessarily complex and costly.

A much simpler, cheaper and probably equally efficient[1] apparatus may consist simply of a pair of bellows of proper size, a few feet of India rubber tubing, a face-mask, and two sizes of intubation tubes. There should also be set in the tubing a double metal tube, with openings so placed that their size can be so regulated by turning the outer tube (similar to that commonly found in the tracheal canula of the physiological laboratory), so that it is in the power of the operator to allow for the escape of any excess of air thrown by the bellows. I suppose this whole apparatus could be prepared at a very small cost, and it seems hardly necessary to point out its probable value in various narcoting poisonings, and in other accidents in which death is produced by a temporary paralysis of the respiratory centres. The proper use of it could be taught to persons without special medical skill, so that it ought to form a part of not only the surgeon's outfit, but might be of great service in life-saving stations, about gas-works, etc.

I will comment on Prof. Wood's article later on.

My first operation of forced respiration, was not made upon the spur of the moment. I had thoroughly considered it, for fully a year, but when the opportunity did present it was a remarkable one, and I took advantage of it. Shortly after that first operation I made a series of notes upon what I believed to be the value of the operation. These were made in my note-book in the year 1887. I then said that I believed forced respiration would accomplish more than any method of artificial respiration, either in cases of drowning, or even in cases of shock – in cases of asphyxia of whatever nature. I am glad to state now that I am more than ever satisfied of the truth of those statements. In the last case which I will report here to-night, the demonstration will bear this out.

I should like to enter somewhat into the interesting experiences which I have had since making my first operation, and the trials and tribulations to which I have been subjected in the promotion of the measure; but I presume that any one who makes an operation possessing so far reaching an import as does forced respiration, will probably have a like experience. I made my first operation in July, 1887, and saved a life which I had thought there was no possibility of saving. When I made tracheotomy in that case I felt that I was making the operation upon a cadaver, and worked accordingly. When the man gave evidence of life, I was as much surprised as any one present. I rightfully became quite enthusiastic over the operation. When some time afterward, I went to Pittsburgh as Treasurer and Custodian of the American Society of Microscopists, to attend the annual meeting of that Society, it was suggested that I might explain my methods to some of the physicians there. Some of Pittsburgh's ultra-conservative physicians, however, thought it was just as well to let me go to Washington, where I was intending to read a paper on the subject, "for fear there might be some under-hand business about it." Then, some of our Buffalo physicians intimated that what I had done was nothing novel; the operation was an old one, said they; dogs had been treated (*killed*) by forced respiration ever since vivisection came to be utilized in the medical colleges. I was well aware of that, but I had never been taught in medical college that forced respiration would *save* even a dog's life, much less the life of a human being. And this was the teaching of the world at that time. I knew that my apparatus was original in its conception, practicability and results, and took steps which assured this fact. As a further fact, to show what even at the present time the teaching is, and to indicate the necessity of repeatedly presenting this subject to the profession, I will merely state, that if you will turn to the last "Blakiston's" "Visiting List," you will find, under "Marshall Hall's ready method in asphyxia," that the directions are to "avoid the immediate removal of the patient, as it involves a dangerous loss of time; *also the use of bellows or any forcing instrument.*" This is what the medical profession was taught to believe at the time I made my first operation. I was treading upon the accepted principles of the profession, and liable to severe censure had I failed in my first operation.

Well, as stated, I went to Pittsburgh, and the conservatism of the profession showed itself there by refusing to listen to what I had to say upon the subject. When later, I went to Washington, I was not heralded by any fore-runners, was acquainted with but very few individuals at the International Congress, and it was with the greatest difficulty that I had an opportunity to read my paper at all; and what was the most peculiar feature of the whole circumstance was, that, even among a class of men supposed to possess the highest medical knowledge, not any of them saw the point which presented in that first case of forced respiration, in which I breathed for a man two and one-half hours with a tube in his neck. They did not grasp that point. And I now make the statement, without fear of contradiction, that there was not a paper presented at the International Congress at Washington which had a

[1] I do not agree with Dr. Wood, reasons given further on. F.

farther reaching import, if to save human life is desirable, than that little paper on "Opium Poisoning," which I presented—a paper embodying in it demonstrations which would alter and advance one of the greatest medical practices of the day, a practice of wide application. It demonstrated what was before not practically accepted in medicine, that we could force air into the lungs for an almost unlimited period without danger to the delicate lung tissue. Dr. Vandenburgh, of Columbus, Ohio, a disinterested observer, speaks of it as "one of the most interesting and valuable therapeutic discoveries of the day."

When I managed, however, to read my paper at Washington, they did me the kindness (?) not to publish it in the proceedings. After I had saved my third life, however, by forced respiration, and the world could not question methods which were so positive in their demonstrations, and so undeniably original, there not being a similar case on record, I had a discussion with the Chairman of a Section, and also with the Secretary-General of the International Congress, and from that discussion, which can be produced if it should be necessary, it was evident that my paper either was not carefully read, or the principal point conveyed by it was not grasped by the members of the committee.

In my first case, a man had taken 20 grains of morphia. After two and a half hours of forced respiration with the apparatus his life was saved. That is, after the dilatation of asphyxia had taken place, and all known methods had failed.

In the second case (not mine), a man had taken 8.24 grains of morphia. This case occurred in Vienna, Austria, two months after my first case. After four and a half hours of forced respiration, that is, you must note, after artificial respiration had failed to do any good, the patient was saved by forced respiration.

In the third case (my own), a man had taken 2 ounces of laudanum. It had been demonstrated that artificial respiration would not save him. He was dying. Then we began with forced respiration, and after fourteen and one half hours with the new apparatus which I had devised, his life was saved. That was by tracheotomy

But the fourth case came. A man had taken 2 ounces of laudanum, had severed the anterior jugular vein, and had lost a large amount of blood. For twenty-one and one-half hours continuously applied forced respiration kept him alive until he could breath for himself, and then in a few hours he asked that it be applied again. He is now living in the southern part of the States, in good health. In this case was demonstrated a very interesting point which has not been brought out prominently, which is, that in a case of great loss of blood from hæmorrhage it does very little good to inject ether or brandy into the peripheral capillaries, unless you can inject it into, or proximally to a large vein, where you know it will be taken into the circulation. The patient laid in bed nearly two months merely because the ether and brandy which had been injected into the chest produced a gangrenous condition of the tissue. The fluid was not carried off by the capillary circulation, and the muscles of the chest sloughed away, down to the ribs. In the thigh, where injections had also been made, owing to the same cause existing, a weak or very slow capillary circulation, an abscess formed, and a cup of pus was removed on the first incision. This demonstrated very interestingly the necessity of care in the employment of hypodermic medication where there is excessive hæmorrhage.

Following these interesting cases, came a series in which the results were not so successful. An old gentleman, 80 years of age, had taken 1 ounce of laudanum. At the hospital artificial respration was used, the hospital physicians gave him up. Then forced respiration kept him alive for some twelve hours after that.

One of my most interesting cases was a little child, 18 days of age, of one of our prominent citizens, which had accidentally been given 1 grain of morphia by a physician of the homœopathic school. The little one took the whole of the poison, equivalent to about eighty doses, and came under the influence of it. It was given about a quarter to one. I was called at five o'clock. Without proper apparatus I went to work and made tracheotomy, a most difficult undertaking in one so young; but I succeeded in getting down to the trachea. I then with a small catheter inserted into the trachea, kept up forced respiration, with bellows and valve, with the result that the little one, which was markedly cyanosed, became of a natural hue, the blood became oxygenized, and it breathed for itself a short time. The bowels moved and the evidence was strong that the child might live. But owing to the long time during which the asphyxiated condition had lasted through the influence of the poison, it was too much to expect that we could retain the vital condition of the tissue of the brain for a sufficient time, as was demonstrated by the heart failing to act some four hours after the forced respiration was begun, when death supervened. This was one of the most striking demonstrations I ever had of the value of forced respiration.

Again, it is usually conceded that when you can obtain no pulse at the wrist and no heart action on auscultation, that an individual is (nearly) dead. This condition existed in one instance which occurred. It was a case of opium poisoning. The day before this case presented, I was about to make tracheotomy and carry out my operation in another case, when I noticed indications that the patient would probably live with-

out it; we waited, and he did pull through without the operation. The next day I had the case referred to. I waited until there was no pulsation at the wrist, and could detect no heart action on listening over the chest-wall. I then made tracheotomy. The blood was markedly venous, but upon passing oxygen into the lungs it became oxygenized and red, and furthermore, the heart action became distinct, and the pulse again was present at both wrists. But after an hour the heart again ceased beating. I had waited a little too long before beginning the forced respiration.

After this I demonstrated another method, by which we could perform forced respiration without tracheotomy, and the first application of it occurred in trying to keep alive a still-born infant by passing a tube into the mouth and compressing the nostrils; I succeeded in keeping it alive for a number of hours. Owing, however, to compression of the brain produced in labor which existed, there was evidently no chance for the child to live, and I gave up the attempt. So long, however, as the forced respiration was kept up, the heart continued to beat.

Then came another case which demonstrated, also, that life can be kept up by forced respiration without tracheotomy. A man had taken 2 ounces of laudanum. One of the physicians[2] present called attention to the dilatation of the pupils as an indication of the very near approach of death. I had begun to make the operation for tracheotomy, but found the blood markedly venous. I stopped, and inserted the tube of the apparatus in the mouth, closed the nostrils and forced air into the lungs through the mouth, and had the satisfaction of seeing the blood in the neck turn from a dark purple to bright scarlet, indicating that there was sufficient heart action to carry the oxygenized blood through the system, and demonstrating the valuable fact that through the mouth and the nostrils sufficient air could be made to pass to the lungs for a time to retain life without the necessity of tracheotomy. This subject seemed to have a mania for committing suicide by taking laudanum, and afterward took 2 ounces of laudanum and about 5 or 6 grains of morphia; I repeated the operation of tracheotomy, and again saved him. Upon making a third attempt he was sent to the asylum, and is now, I believe, cured of his peculiar habit.

Another case presented in which a young woman took 2 ounces of laudanum; by breathing for her four hours with the face-mask alone, her life was saved, *i. e.*, without tracheotomy.

Now comes a case which I want particularly to call your attention to, as one in which some facts were demonstrated which I had been waiting for for a long time. Dr. Wood, while admitting that I made the first comprehensive operation of forced respiration, criticized the apparatus used, and in reply to his objections I desire to state that when I made my first operation it was with incomplete apparatus, and it was surprising on this account that I did not lose the case. Had I failed it would probably have "settled" the question of forced respiration. Before, however, attempting to construct a suitable apparatus, I very carefully considered the details and the conditions to be met, and the apparatus as finally devised consists of a tracheotomy tube, a tube connected with the air-control valve, and then a tube connecting that with the air-warming apparatus, which in turn is connected with the bellows by another tube. With this apparatus, whether on board of a ship, or even on the ice, or elsewhere you can supply the human lungs with air at the temperature of the body within five or ten minutes at the most from the time you begin, and can keep it up for an unlimited time. So it will be seen that while my apparatus covers almost all the conditions for every case that may present, yet it also answers for the *most simple method possible* in forced respiration. That is, you can use the face-mask, rubber connecting tube and bellows alone, or the face-mask, air control valve and bellows alone, which I would by all means recommend as much better than the former combination. In this last case, a woman had taken an uncertain amount of morphia—a large amount, however, as was evident from the effect produced upon her. About midnight a physician was called, but refused to attend, so that she was under the influence of the narcotic all through the night, until about 10 o'clock the next morning. I was called at 9 A.M., and arrived about 9:30. I ascertained there was no pulse at either wrist, but on auscultation found the heart faintly acting, cyanosis deep. I then had her placed upon a mattress in an adjoining room, and with the face-mask, air-control valve and the bellows, went to work. I digress again to state that the point of interest in connection with this air-control valve is this, the moment you press the lever the air passes into the lungs; release it, air can pass out of the lungs, or it can pass into the lungs (though not from the bellows), or auto-respiration can take place. The moment the valve is pressed down, though the bellows may be ten or twenty feet away for that matter, yet the air is under continual pressure, and enters the lungs from the valve without any loss of time. You have absolute control of the air passing to the lungs; and this is the important factor in the whole proceeding. (Also in the use of the valve, as improved oxygen can be systematically administered). If you had the bellows and the face-mask alone, the air would necessarily have to come clear from the bellows, through the tube, to the face-mask, before you could be sure of its passing into the

[2] Dr. Carlton C. Fredericks.

lungs, and consequently the respiration could not be carried on so satisfactorily. Dr. Vandenberg's apparatus operates, I believe, so that when you work the bellows air passes into the lungs; but when you stop the bellows, the flow of air ceases; and I do not think there is as quick control of air passing to the lungs as by the method I have used so satisfactorily. Furthermore, all the physician has to do is to work the air-control valve, and any one can work the bellows, which is the work in which physical exertion is expended. In the case now under consideration, I worked for fully an hour and a half before the pulse at the wrist could be detected. The woman then became conscious, sat up and asked for a drink.

In the middle of the afternoon, Dr. Porter came in to witness the operation and offered his assistance, which was accepted. It may be stated that when a person is very deeply narcotized, with forced respiration we may occasionally produce a conscious condition, but the patient will again pass under the influence of the narcotic, and become utterly unconscious. You may breathe for him or her for half an hour at a time, yet there will be no evidence of life except the action of the heart and the fact that the blood is supplied with oxygen. So this lady would occasionally become conscious. During one of these conscious periods Dr. Porter, who had been standing in one corner of the room, came forward and began to perform Sylvester's method of artificial respiration—with the object, I presume, of demonstrating that it would accomplish as much as what I was doing. He understood how to apply that method from previous experience. All watched the result with interest. In a little while, the cyanotic condition began to appear along the face, gradually becoming deeper and deeper. I said, "Doctor, you see now just what the result is." "Yes," he said, "there is no question about it." We then renewed the forced respiration with the face-mask. In a short time the cyanotic condition disappeared, and the woman again became conscious. I regard it as a very important and interesting fact to state, therefore, that we had here a demonstration that forced respiration with the face-mask will accomplish more than the best of the methods of artificial respiration in use in the past throughout the world. You can save life by forced respiration by this method when you cannot possibly do it by any method of artificial respiration whatever. I kept up forced respiration with this woman until she revived again, and began to be in quite a jovial condition, and as I thought, was perfectly safe. Then Dr. Porter desired to try the Faradic battery, which I consented to, regarding the woman's condition such that, were it necessary, we could at any time rely upon the forced respiration again. I was anxious, of course, to report this as another case of life saved by forced respiration. After breathing some eight hours and carrying the case through the most critical period, we called the Faradic battery into play. But what is the result of faradization in a case of that kind? Merely the stimulation of the heart at the expense of its energy. However weak the current may be, if you obtain any heart action, it is of a tonic nature, and secured at the expense of the energy of the heart muscle. What we need to look out for in such a case is to conserve the energy and the vitality of the heart muscle. In this case the result was that after about three-quarters of an hour of faradization the heart stopped beating, spasmodically. The case was lost through faradization.

Now, a moment to consider the relative value of tracheotomy and of the face-mask in forced respiration. Is tracheotomy any better than the face-mask? Prof. Wood, of Philadelphia, says he does not think it will ever be necessary to resort to tracheotomy. My belief is, founded on this last case, that in a long-continued operation it is possible to breathe for the patient more easily and thoroughly by resorting to tracheotomy. In respiring for a person with the face-mask, it must be remembered that the passage to the stomach is open, and the air passes down the œsophagus to stomach and intestines. This presents the difficulty in working with the face-mask. If it is desired to eliminate poisons the patient may be given anything without danger of fluids passing into the trachea, by the tracheotomy method; and you have better control of the patient. If I had a case in which I thought I should have to respire for the patient for eight or ten hours or more, I would make tracheotomy, feeling that I could accomplish more, and have more thorough control of the patient.

I do not recommend as yet intubation, because I think there are many cases, in fact have seen many, where it was not practicable owing to the difficulty of intubating the larynx; and if we can pass air into the larynx or trachea without intubation, as by the face-mask, it is of course always better to do it. This is my opinion, from the experience derived in operations on a dozen living beings.

In these experiences I have encountered, I think, quite a number of facts bearing upon the treatment of opium narcosis which are both new and valuable; but I will not refer to that at the present time. I merely wish at this time to call attention to the interesting fact that with the face-mask and forced respiration more can be accomplished, as I believe, than by any method of artificial respiration; and the widely accepted dictum of Marshall Hall that we must use no forcible measures, leads me to give unusual emphasis to this statement.

I will merely add, in closing this inpromptu talk, that fifteen lives are so far to be credited to

the operation of forced respiration. When it comes into general use in cases of drowning, shock, the tiding over of critical cases, in asphyxia from whatever cause, as well as from narcotic poisons, who will not admit it is one of the most important procedures at our command?

(For discussion see Society Proceedings.)

ORIGINAL ARTICLES.

MORVAN'S DISEASE; WITH THE CLINICAL REPORT OF A CASE.

Read before the Chicago Medical Society, March 2, 1891.

BY ARCHIBALD CHURCH, M.D.,
PROFESSOR OF NEUROLOGY IN THE CHICAGO POLICLINIC, ETC.

The first description of the diseased state which by courtesy and for convenience may be called "Morvan's disease," was made by Dr. Morvan, of Lannelis, in Brittany, and published in the *Gazette hebdomidaire de Médicine et de Chirurgie* in 1883, under the title of "Parésie Analgesique avec Panaris des Extremities Superieures." Since that date he has made numerous communications on the same subject in the same journal, with the reports of eighteen cases. In 1885 M. Broca (*Ann. de Dermat. et de Syphilog.*) published a case, and in 1887 M. Prouff (*Gazette Hebdom.*), another Breton physician, recorded one, followed by Hanot in the same year. In 1888 d'Oger de Speville collated in a Paris thesis nine cases from various sources. In 1889 Heckel published a clinical observation (*Berlin Klin. Wochenschrift*). The same year (*Sem. Méd.*), Gombault reported the autopsy of Prouff's case before the Société Medicale des Hôpitaux de Paris, and in 1890 Charcot (*Prog. Méd.*) published a clinical lecture on the subject, to which the writer is mainly indebted for the following description and for cuts 1 and 2.

A majority of the recorded cases have been among the Breton peasantry, but the condition was first observed in that locality, and possibly is as frequently found elsewhere, though not recognized under this name or as a disease of the central nervous apparatus. Morvan's attention was first attracted by finding a painless whitlow. In his first paper (1883) he says:

> Twenty-five or thirty years ago a man of 60 presented himself, with a whitlow on one of his fingers. We made out a necrosed condition of the ungual phalanx and proposed to make an incision and extract the bone. As the patient gave his permission with reluctance, he was assured that the incision would be made like a flash, so that he would not have time to suffer. The cut, which was sufficiently free, was accordingly made, but what was our amazement to see the calmness of this man. Not a complaint! Had he been of wood it would have been quite the same. He affirmed that he had not suffered at all. . . . Taking a pin, we thrust it into various portions of the hand and forearm, which were swollen, without causing distress.

Originally Morvan stated the three characteristics of this condition to be, 1. Initial pains of a neuralgic sort in the extremities; 2. The appearance of paresis and analgesia, mainly in the hands; 3. The appearance of successive painless and destructive whitlows. Subsequently he modified this dictum, as cases fell under observation in which sensation was not materially changed, or in which paresis was absent, so that the only characteristic to be insisted upon is destructive and numerous whitlows.

The disease has numbered more men than women, but the few cases recorded do not justify generalization in this and many other particulars. Instances have been noted at all periods of life from twelve to sixty years, and for the most part occur in individuals exposed by out-door avocations. As it is the lower portion of the cervical enlargement that is primarily and mainly affected, the exposure of the neck by these people to the inclemencies of the seasons may be worth noting, *en passant*, as a predisposing factor.

The tangible clinical points of any one case are rather meagre, and, owing to the essentially chronic and progressive course of the malady, the early phases are often left in doubt through the forgetfulness of the patient. Frequently there is a history of neuralgic pains of long duration in the extremities afterwards affected, and this is followed by weakness. Sooner or later a felon makes its appearance and, depending upon the condition present as to analgesia, is painful or absolutely free from discomfort, though the swelling, redness and ulceration may attain a destructive grade. Indeed, the tendency of these inflammatory disturbances is to produce more than an ordinary amount of destruction and mutilation. There is usually exfoliation of a part or the whole of the terminal phalangeal bone, and the upper ranks are not infrequently lost. The nail matrix is also affected, resulting in dwarfed, claw-like nails, or only slight horny protuberances may be left. When the analgesia is pronounced, an apparently exquisitely tender felon may give no pain upon manipulation and, as we have seen, not even resent the knife. In this condition the patients have frequently themselves picked out the bony fragments, the slight discomfort not leading them to seek surgical aid. Such fingers present a characteristic appearance. They are short and thick, and if the middle phalanx, or more emphatically if all the phalanges are lost, the presence of the stunted nail at the end of the stump is sufficiently noticeable. It appears as if the finger had been telescoped. (Cuts 1 and 4.) In some cases other evidences of dystrophy are present. The flexures of the fingers and the palmar folds are liable to cracks and fissures which are difficult to heal, and may present thickened epidermic margins about an indolent ulcerated centre, comparable to perforating ulcers of the

feet due to nerve injury, and not rarely found in tabes dorsalis. While the first felon may be painful, and marked by all the misery that usually attends them, succeeding ones are not, and, as a rule, both hands are eventually invaded. In one of Morvan's cases the lower extremity was finally implicated. Cases present from two to ten successive whitlows, and every digit may be mutilated by them. The tendency is to their symmetrical distribution. The hands become cold, dry, and subnormal in temperature, or may be the seat of profuse sudation and chronic swelling. Broca called attention to the fact, confirmed by Morvan, that the spinal column in over one-half the cases showed by distortions the tendency to dystrophy in osseous structure. The scoliosis or kyphosis, however, is usually slight in degree, and not accountable for any injury to the spinal cord. Indeed, it is a result of the implication of the cord, and another evidence of the impairment of the cord's trophic functions. As a rule, the convexity of the curvature is toward the hand

No. 1.—Hand in Morvan's disease. Hanot's case. After Charcot.

No. 2.—Hand in Scleroderma. After Charcot.

first involved, which is generally the right in men, the left in women. The joints of the hands, wrists, elbows, and even the shoulders, are sometimes affected with a dry, painless arthritis, and a condition analogous to the joint lesions of locomotor ataxia is developed. (Cut. No. 3.) In several instances a slightly subnormal temperature has been persistently recorded even during inflammatory features of the malady.

Aside from the analgesia already mentioned, and which seems primarily to affect the deeper structures, there are usually well-marked and various impairments of cutaneous sensation. Tactile, pressure and thermic sensations, severally or singly, may be diminished or obliterated, or intact. No mention is made of hyperæsthesia, but the persistence of tactile sense with the complete loss of thermic and painful impressions, is said to be rarely or never present. The extent of these perverted areas of sensation seldom passes above the upper extremities, though in some cases the body is invaded more or less widely. The forearms and hands often present considerable muscular atrophy, and to the electric current manifest changed reactions indicative of nerve degeneration. Superficial and deep reflexes are not noticeably changed, nor is coördination materially modified.

Gombault's autopsy of Prouff's case furnishes all that is known of the anatomy of the disease, with the exception of some minor observations made upon the amputated extremities of the fingers, which furnished evidence of peripheral neuritis. This, the only case completed by an autopsy, was a woman of 56 years, who from the age of 12 had suffered from a series of whitlows which had caused considerable mutilation, marked by trophic troubles of the skin and muscles with errors of sensibility, all located in the hands. The spinal cord and peripheral nerves of the upper extremities were particularly examined. He says:

> The nerve lesions consisted in an exaggerated production of connective tissue, with degeneration and disappearance of a large number of the tubules. These lesions presented the sort of distribution attributed to ascending neuritis; that is to say, they were more marked at the periphery and gradually diminished as the body was approached. In the spinal cord the alterations were localized in the cervical region, and only implicated the posterior horns, the posterior columns, and a small portion of the central gray substance. All these parts were the seat of an abnormal and diffuse development of interstitial tissue with thickening of the arterial walls, and frequently with obliteration of the lumen of the vessels. Nowhere did this sclerosis assume the form of an isolated or separable tumor. Owing to the state in which I found the cord when I was enabled to examine it, I could not decide whether there existed accidental cavities in the middle of the central gray substance, analogous to those which characterize syringomyelia, or not. I am, however, rather inclined to admit the negative. Nor can I decide whether the cord change had been the cause, or only the result, of the lesions in the nerves. The single point to retain from this examination, it appears to me, is the coexistence of lesions pertaining both to the cord and to the peripheral nerves.

It was on the same occasion pointed out by Debove that these lesions bore a striking resemblance to those of tabes. Charcot agreed perfectly with Morvan that the trouble is primarily in the cord, and that the trophic and sensory disturbances and the peripheral neuritis are all secondary to the central change, while others find an explanation of the cord lesion in the extremities and the pathological conditions found there. It is needless to say that as yet, no microbe has been brought forward as an etiological factor, and the ultimate cause of the disease is wrapped in the same mystery which pertains to other sclerotic affections of the cord. Even syphilis has not been accused of the paternity of this malady.

The diagnosis of the disease in recent cases must often be difficult, but when the condition has been of long standing it is probable that ordinary attention and care, with a knowledge of

its existence, will be quite sufficient for its recognition. A somewhat allied tropho-neurosis, localized and symmetrical scleroderma, may at first be confusing. When this condition is limited practically to the hands it gives rise to paresis, distortion and changes of a general nature in sensation, with atrophy, but there is no tendency to alteration, to the exfoliation of bone, and the peculiar analgesia above described as usual in Morvan's disease is wanting. The hand assumes a peculiar position with the digits extended, except at the metacarpo-phalangeal joints, which are flexed, and there is a tendency to over-extension in the middle joints of the fingers, particularly in the index. It is the arrangement produced by the action of the interosseous muscles, and is sometimes called the interosseous position. The skin is shiny, adherent to the bones, and the digits, atrophied *en masse*, behave like so many tapering rigid sticks. (Cut No. 2.) Associated with scleroderma is a peculiar mask-like expression of face, due to the implication of the facial integument and its adhesion to all bony prominences. This is so characteristic that, once recognized, it can scarcely be mistaken.

Another form of scleroderma, ainhum, occurring almost invariably in hot climates and in the dark-skinned races, may produce painless amputation of fingers and toes, but usually is limited to the feet, and it is the outer toe that is lost, as a rule. In this condition, the history of a slowly forming constriction by a cicatricial-like encircling band will prevent mistake.

In the anæsthetic forms of leprosy the nails, portions of the fingers or entire digits, may be lost without pain or local suffering. This insensibility is due to a peripheral neuritis set up by the bacillary infection upon which the disease depends. The condition is distinguished from Morvan's disease by the history of exposure to leprosy, and the disseminated leprous nodules and patches on the integument of the body. The process, moreover, is the reverse of the loss of a finger from whitlow. An abrasion of the skin becomes an ulcer, grows deeper and wider, encircles the finger or envelops it completely, and finally causes its destruction or leads to its amputation by the surgeon.

Symmetrical gangrene or Raynaud's disease, so rare a condition that Billroth, a few years back, had never seen a case in his unparalleled field of observation, though sometimes causing a loss of fingers, presents a totally different picture from Morvan's disease. The digits affected, upon exposure to cold or in the morning, or after emotional excitement, present a blanched, shriveled, purplish or mottled appearance, with sensations of tingling and numbness, a loss of power and considerable discomfort This passes away in a short time or may persist for hours, to recur under similar circumstances for months or years. Subsequently, in destructive cases, the circulation, which is said to be inhibited by vaso-motor spasm, does not become even temporarily restored, and dry gangrene results, causing mummification of the members and finally their loss. There is no whitlow, no peculiar dissociation of cutaneous sensations, and no evidence of organic cord disturbance before or after death.

Some writers and observers, with Debove in the lead, assert that Morvan's disease is identical with syringomyelia, but this is most vigorously denied by Morvan himself, and he is supported by Charcot, Hanot and others Nevertheless, there are many striking clinical resemblances. The asserted pathognomonic indication of syringomyelia is loss of painful sensations and inability to distinguish the temperature of any object brought into contact with the affected areas, while the sense of touch and tactile impressions remain essentially unimpaired. It is often associated with atrophy and paresis depending upon the distribution of the gliomatous infiltration about the central canal of the cord, which forms the anatomical basis of the condition and gives rise to the cavities within the cord and the dilatation of its central canal upon which the somewhat unwieldy name depends. Morvan insists that this particular dissociation of the cutaneous sensations is never found in the malady bearing his name, and the single post-mortem observation already quoted does not correspond with the findings in cases of syringomyelia now on record. However, both Morvan's disease and syringomyelia number but few published complete instances, and it may be premature to insist upon their absolute differentiation. To an unprejudiced mind the prime point of importance is the fact that they both depend upon an irregularly distributed sclerosed condition of the cord. The variations outside of that seem to be a matter dependent only upon the position of this adventitious and unsystematized lesion as it affects nutrition, sensation and other myelic functions in proportion to their anatomical implication. Besides, all gradations between typical syringomyelia and typical Morvan's disease have been encountered. Both are instructive in demonstrating the location of sensory tracts in the cross section of the cord. The clinical and anatomical features of resemblance between tabes dorsalis and Morvan's disease have been already pointed out.

The course of the malady, as already often indicated, is extremely chronic, and as far as now known, practically beyond the influence of therapeutical intervention. In any given case it is to be expected that whitlows will occur from time to time, and of course the resulting mutilations are irreparable. In some instances, from this source, septicæmia has resulted and terminated life. Such measures as are directed against a low grade of inflammation in the cord are to be tried

and persevered with, and of course the general health is to be maintained. It would seem specially advisable that the hands receive scrupulous care and protection, as any traumatism or superficial abrasion may cause serious results or even lead to the loss of a finger.

The following case was brought to the writer's attention by Drs. Patrick and Harris, of this city, and of the Policlinic staff, in November, 1889, for an opinion regarding the nature of the joint disease in the left wrist (Cut 3), its similarity to the joint lesions of locomotor ataxia having given rise to discussion. At that time undue weight was attached to the scoliosis, which is marked (Cut 5), and implication of the cord or nerve roots was suspected. Further consideration of the case enables one to classify it with those recorded under the title of "Morvan's disease," every important symptom of which it presents, besides some additional features not incompatible with such diagnosis. Since that date the man has been casually seen at intervals, and nothing new has developed. Recently (January, 1891) a careful and thorough examination has been made and photographs obtained, from which cuts 3, 4 and 5 are reproduced.

No. 3.—From a photograph. Hand in Morvan's disease, showing joint lesion.

Case.—A. N. is an unmarried Swede of 35 years, who has been in this country since 1886. He now makes a fair living by taking orders about the city for a tobacco firm, in which occupation he does much walking, and is in the enjoyment of excellent physical health, confirmed by his general appearance. His family history presents, as far as he is informed, absolutely nothing in the way of a neurotic trace, and his parents both attained a very advanced age. As a child, youth and young man he was always in good health, growing up in the country. He was engaged in farming until he came to America. Owing to the poverty of the family and the barrenness of the land, his life was one of extreme labor and hardship. His habits have been exceptionally good in all respects, and there is neither history nor trace of any venereal infection. He states that some ten years ago his back became crooked. Previous to that time he asserts that he was as straight as any one. About the same period he had a felon on the right ring finger, near the extremity on the palmar surface, which was excessively painful, kept him awake nights, was marked by high inflammation, great swelling, deep-seated suppuration, and which has left the finger stunted, with a deformed nail and shortened distal phalanx as shown in cut 4. Six years ago, after a bath in a lake on a cold day, he drove several miles in a cold wind, and in a day or two the left hand, wrist and arm became greatly swollen and very painful. He was sick, confined to his bed for a month, and remembers having severe chills and a high fever. The swelling in his wrist, where the main difficulty was located, never entirely subsided, and now presents the contour and deformity shown in Cut 3. There is no pain, heat, redness or tenderness about the greatly enlarged joint, though the carpus seems entirely disintegrated. Upon passive motion, which is but slight, there is roughness, grating and creaking in this articulation. The thumb is shortened as is the entire hand, and seems to articulate directly with the radius. Its extremity does not reach the first phalangeal joint of the index, as it should normally, by nearly an inch. There is a subluxation of the entire metacarpus forward, and spastic flexion of the fingers, which cannot be straightened voluntarily, and passively only by the employment of considerable force. The whole hand is diminished in thickness and width, and the fingers present a delicate appearance out of keeping with the rest of the extremity, which is rather muscular. The integument is somewhat smoother than usual, but these points may be due to the comparative disuse of the hand for heavy work. The extensor tendons of the fingers are salient on the back of the hand, and the intrinsic muscles seem wasted. Over the thumb he has good control, and the thenar eminence is full and round. Although the grasp of the hand is very much reduced, it is a useful member, capable of many complicated and fine manœuvres.

Three years ago he lost the end of the right index by what he describes as exactly the same process which ten years ago attacked and mutilated the right ring finger, with the very extraordinary exception that it was absolutely painless and not even marked by tenderness. He states that the finger was enormously swollen, very red and angry looking, finally discharging pus, and

that he himself picked out of it several fragments of bone. As shown in cut 4, it now presents but a small portion of the middle phalanx, the distal bone being completely absent, and the greatly deformed, horny, nipple-shaped nail is seated upon the end of the stump. The scar marking the opening through which the bones escaped is on the anterior surface, running to and involving the nail matrix.

No. 4.—From a photograph. Hand in Morvan's disease, showing mutilation from whitlows.

Within that same year the middle finger of the right hand went through exactly the same programme and exhibits practically the same mutilation, though even more shortening is present. In both these fingers the joint between the first phalanges and the fragments of the second is preserved. The hands show no other trophic disturbances. The skin is elastic, soft, properly moist and of a good color, indicating no material change in the circulation of the parts, nor are they unpleasantly affected by cold weather.

Upon testing the sensibility of the hands it is found that on all parts the lightest touch with a flake of cotton wool is instantly perceived and accurately located. Indeed, he responds to this delicate test better than some individuals in a presumably normal state of health. The prick of a pin is equally well felt, but not as a painful sensation. He cannot detect the difference between a pin point and a blunt pencil, and this too when the pin is thrust sufficiently into the skin to remain standing there. When tested with similarly shaped hot and cold objects it is only with difficulty that he can properly make out their respective temperatures, and slight variations escape him entirely. These peculiar conditions are present in all portions of both hands and gradually fade out upwards toward the elbows. There is no retardation whatever in the transmission of tactile impressions, and no subjective unnatural sensations. Palpation does not detect any tenderness over the nerves or thickening of their trunks. Coordination in the upper extremities, as tested by having the patient make exact movements of wide range while his eyes are closed, is quite normal, and electrical tests present no departure from the formula of health, even in the left hand. The muscular sense seems normal.

No. 5.—From a photograph. Showing scoliosis in Morvan's disease.

His gait is somewhat shambling and difficult to describe, being more of a peculiarity than anything else. There is no limp or dragging of the feet, and he walks in a straight line with great precision and firmness with his eyes closed. His body is plump, smooth and free from blemish of any sort, but the spinal column shows a compound curvature. The convexity, beginning in the upper dorsal vertebræ, is backwards and to the right, embracing most of the dorsal region, with a compensatory curve in the opposite direction in the lower dorsal and the lumbar spine. These curves are practically very pronounced exaggerations of the normal lateral deflections, and certainly not sufficient in themselves to implicate the cord, the lesion of which, indeed, cannot be below the first dorsal segment. They may explain the peculiar walk. There is no tenderness anywhere along the spine or any marked prominence of the spinous processes, and the column is ordinarily flexible throughout. In taking the photograph from which Cut 5 is made, the outline of these

processes was indicated by roughly marking them on the patient's back with iodine.

An examination of deep and superficial reflexes detects nothing abnormal, though the knee jerk is somewhat pronounced. There has never been any loss of control over the bladder and rectum, or difficulty of any sort with these organs. There is likewise nothing in the history suggestive of the lightning pains and crises of locomotor ataxia, nor girdle pains, nor hyperæsthesia of any character. The special senses and their respective organs are quite normal, the mind unaffected.

In summing up the case the analgesia in the hands, the dystrophy of the wrist-joint, the loss of fingers by whitlows, all point to the diagnosis of Morvan's disease and furnish its most salient characters. The retention of the tactile sense with the marked blunting of painful and thermic impressions, *per contra*, constitute the so-called pathognomonic indication of syringomyelia. This therefore is probably a mixed case. Such a number of speculations as to the exact location of the lesion in the cross section of the cord present themselves, that their discussion is idle. This much seems certain, the anterior horns and the pyramidal tracts are not implicated. The solution must be left to a post-mortem examination which, fortunately for the patient, appears to be a distant contingency.

167 Dearborn St., Chicago.

ABSCESS OF THE LUNG.

Read before the St. Louis Medical Society, December 14, 1890.

BY WILLIAM PORTER, M.D.,

PROFESSOR OF DISEASES OF THE THROAT AND CHEST IN THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS.

I have not thought to present an exhaustive essay upon this theme. The subject is interesting, its literature comparatively meagre, and it is closely related to the progress of that most aggressive department of our science—surgery; so that at least I may offer a few conclusions regarding it for your discussion.

Permit me at the outset, by way of definition, to say that it is not intended in this paper that the term abscess should apply to those accumulations of pus secreting cavities which are so often found in the later stages of phthisis, but only to the circumscribed suppuration which may arise independently of tubercular processes. The history of pulmonary abscess as given by the older writers is not very exact. They generally supposed that the condition was the result of delayed resolution of pneumonia, and that if the inflammation did not subside by the twenty-first day suppuration was sure to result. This latter proposition is not in accord with modern knowledge, yet we do find that abscess is often preceded by a pneumonia more or less severe. Stokes places abscess as the fifth and last stage of pneumonia, while Leyden further recognizes a form of chronic abscess, occurring in chronic pneumonia, resembling the vomica of phthisis. While there may be many causes that predispose to pulmonary abscess, the positive causes aside from traumatism and foreign substances are easily placed in three classes: 1. Inflammation within the lung; 2. Perforation of pus cavities from without, as for instance, from the liver or pleural sac; 3. Embolism from right endocarditis or from the systemic veins. I believe also that we may sometimes have the first and third conditions combined. In croupous pneumonia, for instance, there is not only the local inflammation within the pulmonary structures, but often a marked depression of the vaso-motor system and of the motor ganglia of the heart. As a consequence there is in addition to the local pneumonia, a distension of the pulmonary vessels, oftentimes of the right ventricle itself, and greatly diminished circulatory force within the lung, conditions that must favor obstructions in either the bronchial or pulmonary system with destruction or infection of the tissues beyond the occluded point. Several cases of circumscribed abscess of the lung that I have examined closely gave no evidence of preëxisting pneumonia, while everything pointed to the hypothesis that the local lesion was the result of infarction from embolism.

A few points in the etiology of pulmonary abscess may be noticed in passing. The first is the statement found in most of our books upon the subject, that local inflammations in the lung cause the single abscess, while the results of embolism are multiple. Not always is the latter proposition correct. There certainly may be a blocking up of a single branch of a bronchial artery from embolism, sufficient to cut off all supply from that portion of the pulmonary structure beyond, causing gangrene; so also we may have a single branch of the pulmonary artery plugged by an infectious embolism, and consequent infarction and the disintegration of the surrounding structures.

A second thought closely associated with the etiology of pulmonary abscess is the fact that while occlusion of a bronchial artery is more likely to produce gangrene than an occlusion of a pulmonary branch, yet the latter conditions may also cause gangrene by the infarction and often consequent apoplexy, destroying the bronchial circulation and thus cutting off nutrition.

While then we may believe that an embolism in either the bronchial or pulmonary systems may produce gangrene, is it not also probable that an embolism in a bronchial branch may produce an abscess? The fragments from this form of endocardiac inflammation are known to have septic properties and to lead to suppurative infarctions. Why not in a small bronchial artery as well as elsewhere?

Again, we may ask the question as to the relation between a slowly resolving pneumonia and pulmonary abscess. Generally the influences of the local inflammation may be directly the cause of the consequent suppuration and we nearly always find the abscess at this site of the pneumonia. I believe it possible, however, for septic material to be carried from the lung itself, during the processes either of suppurative pneumonia or pulmonary tuberculosis, to pass from the pulmonary venous system through the left heart into the aortic and by way of the bronchial arteries back into the lung, and so producing infarction and infection. My reason for this hypothesis is the result of an autopsy in a case of croupous pneumonia, which had become suppurative, and the finding of a hæmorrhagic infarct and tissue degeneration in the opposite lung, in which were no post-mortem evidences of pneumonia.

Believing embolism, either of a bronchial or pulmonary arterial branch, to be a frequent cause of abscess in the lung, I would not underestimate the effect of local inflammation in the lung as a causative agent, for after all, most of the cases of abscess are the result of such conditions. This is what we might expect where restoration to the normal is delayed, especially after pneumonia. In the croupous type, and indeed, in the catarrhal also, the epithelial lining of the vesicle is destroyed, and if a suppurative process follows incomplete resolution it is not hard to understand how the pus-bathed vesicular wall, with impaired blood and nerve supply, may break down and the vesicles coalesce in abscess cavities.

The close parallelism which exists in the etiology of abscess and that of gangrene is also found in the study of the pathology. It is claimed by some that where the abscess is the result of embolism, that in the obstructed vessel are found specific micrococci having pathogenetic or pyogenetic force. Ogston found microörganisms present in a large number of cases of abscess of the lung, and other observers have made the same statement. In one case I found large colonies of the bacillus tuberculosis, the abscess being undoubtedly tubercular, although the rest of the lung was not infected so far as could be determined. After the destructive tendency has been once established the conditions of progress do not vary much from what is known of abscesses in any soft tissue. The main difficulty in the diagnosis of pulmonary abscess is its oftentimes close resemblance to gangrene. It is fortunate for us that it is not necessary to establish positively the existence of one or the other, in reference to treatment. Whether it be a simple abscess, destructive gangrene, or, as often happens, gangrene with liquefaction, the indications for interference are generally plain enough.

I need not long detain the members of this Society in discussing the diagnosis of abscess of the lung. If in addition to the physical symptoms of localized dulness and absence of vesicular murmur, we have the sudden appearance of large quantities of pus in the expectoration, an abscess may be suspected, especially if we find the presence of the elastic fibers of the alveoli, in addition to brownish red pigment and hæmatoid crystals. The absence or presence of these substances, as well as the history, will do much toward determining the differential diagnosis between abscess of the lung and pus cavities penetrating the lung from without.

Many writers have thought that the main physical symptom in making a diagnosis between extra-pulmonary cavities and those within the lung was the pectoral fremitus. Fremitus is often absent where the abscess is outside the pulmonary tissue, and increased over an intra-pulmonary cavity communicating with a bronchial tube, and partly filled with liquid, but in a paper by Fenger and Hollister in the *American Journal of Medical Sciences* for 1881, they concede the doctrine so far as consumptive cavities are concerned, but doubt whether it is true in cases of abscess or gangrenous cavities. In several cases that I have examined, where the diagnosis was afterwards confirmed by operation, the pectoral fremitus was greatly increased. The diagnosis between abscess and gangrene is not easily made so far as the physical symptoms are concerned, but the more marked depression, the horribly characteristic odor, not only of the sputum, but of the breath, and the greyish green expectoration of gangrene will not be easily forgotten. The lower layer of the sputum from gangrene, when allowed to stand, contains peculiar plug-like structures called "mycotic bronchial plugs" by Eichorst, from which Jaffe obtained a snow-white substance which turned blue when iodine was added, but which was neither albuminoid nor saccharine. He and Leyden gave this fungus the name of "leptothrix pulmonalis," resembling as it does the leptothrix buccalis. This cannot be estimated as an unfailing evidence of gangrene, as the same fungus is found in the sputum of other diseases when allowed to putrefy.

When an abscess of the lung has been recognized, the manner of treatment is a worthy subject for discussion. Shall we, in the words applied to other conditions by the venerable Dr. Boisliniere, "maintain a masterful inactivity" or shall we formulate expectant measures for relief, or shall we go still further and undertake active surgical interference?

There are certain conditions which must be considered before these questions are definitely answered. It must be remembered that it is not impossible that a pus cavity with such free exit as exists in the lung may fully empty itself, and the walls contract and cicatrize. Much depends upon

the character of the general symptoms. If there is free expectoration, little interference with respiration, absence of pyrexia, and nearly normal pulse there may be no great danger in delay. These conditions are exceptional, however, and the temperature and the pulse, as well as the quantity of pus expectorated, point to rapid disintegration which calls for active treatment. The location of the abscess may have something to do with the question of treatment. Fortunately the direct danger from suppuration is not great. The large vessels and nerves are well to the median line, except in the upper part of the chest, and abscess in a lower lobe is comparatively easily reached. Just here let me say that contrary to the statements of many of our best authors, I have not found abscess of the upper lung even comparatively frequent, except in tuberculous cases. Nearly all of the cases of which I have notes were found in the lower lobe, and generally on the left side. I would not, however, place the experience of a single observer in opposition to the aggregated result of many.

The size of the abscess cavity may be an important consideration in determining the treatment, while we might be willing to wait the further development where the lesion is small and non-aggressive, yet we would not procrastinate in cases of opposite conditions. I believe it is a recognized principle in surgery that when there is pus it should, if possible, be evacuated. That this principle should apply to pus in the lung as well as elsewhere is a reasonable conclusion, not only theoretically, but as a deduction from practice. Even in cases where the abscess is small, where the general symptoms are mild and the local disintegration limited, it is a question as to whether the abscess should not be treated as it would be did it occur in any other part of the body within reach.

But where there is evidence of rapid breaking down of the lining structures, where the general symptoms of fever, restlessness and great depression are prominent, it seems to me that there can be little doubt as to what should be done, and done quickly, lest there be further infection from the pus cavity. The indications for operation may not, however, apply to tubercular cavities if there be general pulmonary infection.

Where there seems to be a demand for removal of the pus, we may ask with Fenger and Hollister, "Is the cavity so situated that we may get at it from the outside, and is the pleural cavity covering it obliterated by adhesions, so that we do not run any risk of causing a fetid pyo-pneumothorax by opening into the abscess and allowing the decomposed matter to enter the pleural cavity?"

The surgeon of to-day who removes ovaries from the abdomen and tumors from the brain, would scarcely hesitate to explore any part of the thorax did he have a reasonable prospect of good result. Certainly the largest part of the lung below the mammary and axillary regions are within reach of the exploring needle, and if need be, the knife.

The second question is of serious import; for surely we would gain little did we but transfer the infectious pus producing process from the lung to the pleural sac. There is comfort in the thought that if the abscess be large and near the surface, there are often adhesions obliterating the pleural cavity and removing the danger in this direction. The authors above referred to assert that it is quite possible to determine the existence of adhesions by making an incision down to the intercostal muscles and passing a needle through both pleural walls. If the needle moves synchronously with the respirations, there are adhesions; if not the pleural walls are not adherent and the operation may be abandoned.

The above is a valuable suggestion but the conclusion may be modified. Under no circumstances would I abandon an operation for pus so situated, unless the life of the patient were in immediate peril. The fact of a non-adherent pleura may change the character of the operation, but the desired result should be obtained in the evacuation of the pus.

When the necessity for surgical treatment is apparent, there still may be a question as to the nature of the operation. Mosler, some twenty years ago, drained a superficial tubercular cavity through a silver tube. Fenger, a decade later, recommends a double soft rubber drainage tube, and both of these avoid resection of the rib. I believe that a better operation, especially where the abscess is large and low down, is to excise a large piece of the rib directly over the cavity and make a free opening into the pleural sac. This free opening into the serous chamber not only does away with the danger of subcutaneous emphysema but enables us to keep the pleural cavity thoroughly aseptic and lessens the difficulty spoken of by Fenger and Hollister, where there are no adhesions. If the cavity be large, the excision of the rib is better for the same reason that it is almost necessary empyema in that it permits a quicker and better closure of the abscess cavity. This is the method advocated by Ruenberg, of Sweden, and adopted by some of our best surgeons, although others object to the excision of the rib on account of possible periostitis and necrosis.

After the pleural sac has been freely opened a much smaller incision may be made into the pulmonary tissues. Within the lung, even at the base, are arteries and veins sufficient to cause considerable hæmorrhage, which may be difficult to control. Sutton warns against plunging the knife into the lung, and Fenger suggests a small opening made by a trocar gradually dilated by blunt instruments till large enough to admit a good sized soft rubber tube.

As the patient will necessarily remain in bed for a considerable time the opening should be made far back on the side to allow free drainage. The tube may be kept in place by a safety pin passed through its outer end and fastened to an adhesive strip. An absorbent compress and bandage will not only take up the pus which will continue to come away for some time, but will prevent the exit and entrance of air during respiration.

That the operation is justifiable is shown by the record. In 1881 Fenger and Hollister reported six cases, one of which, their own, recovered, and Ruenberg (*London Medical Record*, 1887) collated eleven cases of abscess. Two recovered and in three cases the diagnosis was doubtful. In the three fatal cases death could not be attributed to the surgical operation. In seventeen cases of gangrene collected from medical literature, where pneumotomy was performed, seven recovered more or less completely (*Annual of Medical Science*, 1888).

Permit me to offer an abstract of the history of two cases of gangrenous abscess of the lung seen during the last year.

Case 1.—Mrs. G., of North Eighteenth street, a young married lady of good family history. I first saw her in March, 1890, in consultation with her family physician, Dr. A. S. Barnes. The statement was made that she had not been well since the birth of her child some months before, and meanwhile she had had a severe attack of influenza. She was greatly reduced in strength and flesh. The symptoms and physical signs before described as belonging to abscess of the lung were present. The odor was the most offensive I ever encountered. The lesion was in the lower left lobe and the diagnosis was gangrenous abscess of the lung.

Case 2.—The other case is that of Mr. M., of St. Louis, the well known business man, of middle age, prominent in athletic circles I was called in consultation with his attending physicians, Drs. Kuhn and Ludeking, in October of this year. The lesion was evidently not of so long standing as in the former case, and there was no history of a predisposing cause. It was also in the lower left lobe. In addition to the usual symptoms of abscess, there was the phenomenon of marked tympanitis at the site of the lesion, which would be relieved by severe coughing and leave an area of dulness well marked. It was concluded that the tympanitis was the result of the cumulation of air in a partly filled cavity, whereby there was distension until it was forced out by a violent contraction from coughing. There was the same kind of offensive odor, but not so great, and the same grayish-green expectoration. The diagnosis again was abscess of the lung with gangrene. In each case the operation advised above was done and the diagnosis verified. The cavities were kept thoroughly washed out with a weak carbolic acid solution and in each case complete recovery ensued. The fetid expectoration ceased, the temperature became less, and the patients began to improve immediately after the evacuation of the pus.

These cases will be more fully reported elsewhere from a surgical standpoint, but I have referred to them here to substantiate the position taken in this paper: 1. That abscess of the lung presents signs and symptoms which may admit of a positive diagnosis. 2. That abscess of the lung may be the result of, or complicate gangrene from occlusion of a bronchial artery. 3. That operation is often demanded, and that the safest operation is the excision of a rib, giving free opportunity to prevent accumulation in the pleural sac. 4. That the result of such operations indicate the value of this comparatively new field for surgical investigation.

2830 Locust street.

CYSTOMA OF THE ARYTENOID REGION OF THE LARYNX, WITH THE REPORT OF A CASE.

Read before the Section of Laryngology of the Tenth International Medical Congress, Berlin, 1890.

BY W. E. CASSELBERRY, M.D.,

OF CHICAGO.

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, AND OF LARYNGOLOGY AND RHINOLOGY, IN THE CHICAGO MEDICAL COLLEGE; LARYNGOLOGIST TO THE WESLEY HOSPITAL, ETC.

Under this title it is proper to include only cysts, or neoplasms of predominating cystic formation, which originate from the immediate vicinity of one or other arytenoid eminence, including the neighboring part of the inter-arytenoid fold and of the ary-epiglottic fold.

Recent literature has contained numerous reports of cystomata occurring elsewhere in the larynx. Schwartz, cited by Garel,[1] places the proportion of cysts among laryngeal neoplasms in general at 3 per cent., whilst Garel himself, out of a total of sixty cases, has met with cysts of the larynx sixteen times—an unusually large proportion of 25 per cent. Most of these were situated near the anterior third of the vocal cords, and not one was in the arytenoid region. Massei,[2] of Naples, found among his 200 cases of laryngeal neoplasms thirteen cysts—6.5 per cent.

Cohen, in "Sajous' Annual" for 1889, cites five cases reported during the year; one of the epiglottis by Huijsman, three of the vocal cord, respectively by G. Hunter Mackenzie, Desvernine Hayward and Seifert, and one of the ventricular band by Audubert. None of the arytenoid region. Other cases of cyst of the vocal cord have

[1] "Cysts of the Larynx." Revue de Laryngologie, June, 1887; The Jour. of Laryngology and Rhinology, Vol. i, p. 254.

[2] "Sui neoplasmi laryngei." Tepografia del baglia, 1885; Internationales Centralblatt für Laryngologie, Rhinologie, etc., Zahrgang II, S. 124.

recently been reported by Major[3] and Fischer;[4] of cyst of the epiglottis by Photiades[5] and Larmuth;[6] of the ventricular band by Hayward.[7] Of cystoma of the arytenoid region we have been able to find recorded but a single case—that of Fundareno[8] (*el Siglo Medico*, Madrid, April 21, 1889), although the monographs of Ulrich,[9] Mouri[10] and Cervisato,[11] in the original, have been inaccessible to us. Another case, however, probably of the same nature, which was operated upon by Garel, is reported by Moncage[12] under the name of "Fibrocystic Tumor of the Ary-epiglottic Fold."

The etiological factors in the development of cystoma in the arytenoid region do not differ from those of other laryngeal cysts, except that they seem capable of attaining a much larger size and of assuming more the character of a true neoplasm.

Pathological Histology.—Of cysts formed by the accumulation of substances within the cavities of preëxisting structures,[13] the first and most prominent division is that of "retention cysts," which includes, for example, simple cysts arising from obstruction in the tubules of the kidney, the ducts of the liver, the lacteal channels, sebaceous cysts and mucous cysts. Laryngeal cysts, when simple, have all presented the characteristics of "mucous retention cysts," and are formed by the retention of the secretions in some one or more of the glands of the mucous membrane. The duct of a mucous gland, perhaps at some period of acute inflammation of the larynx, becomes obstructed by epithelial débris or inflammatory swelling, and soon the exit is obliterated. This doubtless occurs with considerable frequency, like with the sebaceous glands of the skin, but in most instances, the glandular function being at the same time wholly suppressed, the affected structure subsequently undergoes desiccation or exfoliation, or, if the function is maintained, the old orifice may be reopened or a new one forced, either by mere pressure or through the process of suppuration. In rarer instances, however, the accident of obstruction having happened, apparently, to a more vigorous gland, its secretion continues, is retained by a less yielding wall which is thereby distended to form a thin sac—a small and simple cyst, which is still devoid of any considerable formation of neoplastic matter. A case of this sort, situated on the ary epiglottic fold, we observed in 1882, under Prof. Chiari, at Prof. Schrötter's clinic, and we well remember the genial but emphatic phrase with which Chiari corrected a mistaken diagnosis—"Nein, Meine Herren, das ist eine Cyste."

Such a simple cyst of limited growth may remain quiescent, perhaps unnoticed, if favorably situated, for an indefinite period of time, or it may suddenly rupture and disappear. But otherwise, with certain individuals, eventually or at once, its presence excites an increased blood supply to the spot, which is utilized by perverted nature for a further production of endothelium, epithelium and intermediate connective tissue, forming a thick, fibrous wall sufficiently strong to resist the pressure of the constantly augmenting secretory contents. There is not now longer a mere distension of the structures of a preëxisting cavity, and its contents proceed not alone from the original gland formation, but its wall has a vascular supply and a growth of its own, the contents being elaborated by the entire lining membrane, which is apparently a product of the evolution of the original gland cells. Indeed, the transformation is into a veritable neoplasm which may very properly be dignified by the term cystoma.

Desvernine's[14] case having died of other causes, he reported the pathological histology of the "cystoma of the vocal cord" as follows: "It was found to be a retention cyst of glandular origin, due to inflammation beginning in the epithelium of the gland and progressing excentrically to the para-glandular connective tissue, which has become condensed layer by layer, with a highly fused fibrous envelope." The cavity of this cystoma measured only 5 millimetres transversely, and compared with our immense cystoma of the arytenoid region presently to be described, it was minute, but showed nevertheless, in its wall, evidence of independent growth.

We have tabulated and appended the records of four cases, including two of our own, one of which, presenting noteworthy features, we will relate in detail:

Mrs. F. P., æt. 25 years, referred by Dr. N. S. Davis, Jr., July 13, 1888, relates that she has had a noticeable habit since childhood of throwing her head forward when swallowing as if a slight impediment to deglutition existed. No other symptoms referable to the throat were noticed until May 30, 1888, "Decoration Day," when a "cold" from exposure, culminated at once in a severe attack of acute pharyngitis and laryngitis. Her voice became husky, and the hoarseness continued to increase until, at the end of two weeks, she was completely aphonic. Deglutition, which was at first unimpaired, except as indicated solely by the habit above mentioned, gradually became more and more difficult until, in less than a month, swallowing was restricted to fluids. A sense of discomfort from the "fulness" in her throat, but no real pain, was complained of.

Status Præsens.—Emaciation and debility are pronounced. Respiration is labored, and lividity

[3] Journ. of Laryngol. and Rhinol., II, 209.
[4] Internationales Centralblatt für Laryngologie, etc., iv, 104.
[5] Internat. Centrlbl. für Laryngol., etc., II, 278.
[6] Internat. Centrlbl. für Laryngol., etc., vi., 255.
[7] "Cyst of Ventricular Band." Lancet, September 15, 1888.
[8] The Journal of Laryngologie and Rhinologie, Vol. iii, p. 299.
[9] Ueber Kehlkoffcysten, Wurzburg. Becker, 1887.
[10] La France Médicale, No. 87, 1880.
[11] Lo Sperimentale, Heft. 1 and 2, 1880.
[12] Internat. Centralbl. für Laryngol., vi, 608.
[13] Green, Pathology and Morbid Anatomy.
[14] Sajous' Annual, 1889, G. 17.

of the lips and other signs of impaired oxygenation of the blood are present. Laryngoscopic examination discloses an immense tumor, fully 4 centimetres in diameter, which occupies the entire top of the larynx, encroaches upon the œsophageal orifice and forces the epiglottis forward upon the tongue, nearly burying it from sight. (Fig. 1.)

FIG. 1.—Cystoma of the Larynx.

The vocal cords are hidden from view, but by drawing the tumor upwards and to the left, a glimpse of a part of the right vocal cord and the right arytenoid eminence is obtainable. The tumor is globular in shape, of fibrous appearance, hard and dense to the touch, but suggestive here and there of cystic contents, and presented on its surface ramifying vessels of considerable size.

The paroxysms of dyspnœa occasioned by the examination were so severe that one hesitated to undertake any sort of operative treatment, even for diagnostic purposes, without preliminary tracheotomy, which was therefore performed on July 22, 1888. Present, assisting, were Dr. W. W. Jaggard, Dr. F. S. Johnson, and Dr. McCullom. Ether anæsthesia was employed, and herein lies a grave point of danger in such cases. A respiratory passage had been maintained, doubtless by aid of the throat muscles, serving to keep the neoplasm partly aside. With the earliest suspension of muscular action by the ether, the pharyngeal muscles collapsed upon the tumor and caused the latter to act as a complete stopper to the larynx, whereupon respiration ceased and the face blackened. In this condition of complete asphyxia the trachea was hastily opened, the tube inserted, and the patient then resuscitated by artificial respiration.

After a few days I punctured the neoplasm by means of a large curved needle attached to a hypodermic syringe, and withdrew about 8 ccm. of a light olive-colored, viscid fluid, which was sufficiently albuminous to completely solidify by boiling, and which showed under the microscope innumerable leucocytes. By the following day the tumor had regained nearly its original size through reaccumulation of the contents. A free opening was now made which permitted the escape of fluid, and also of shreddy material too thick to flow through the needle. The collapsed wall was then drawn forcibly upward by a curved vulsellum, when it could be seen to be attached by a rather broad base over the whole of the left arytenoid eminence, including the adjoining end of the ventricular band and parts of the inter-arytenoid and ary-epiglottic folds. It was separated from its attachments and removed in several pieces by the use of a curved galvano-cautery snare, or galvano-cautery knife electrode, and long angular scissors.

The wall of the cyst varied from 1 to 3 millimetres in thickness and exhibited a rather fibrous aspect. Fragments of it were submitted for microscopical examination to Dr. Frank S. Johnson, Professor of Pathology in the Chicago Medical College, who reported the neoplasm, from the presence in spots of closely aggregated, small, round cells, to be probably sarcomatous—a cystic sarcoma. This opinion, somewhat doubtfully expressed at the time, is rendered still more doubtful by the subsequent favorable history of the case, and from a recent reinspection of the slides, jointly, by Dr. Johnson and myself, he submits the following report, with which I concur:

> The tissue is cellular and quite vascular. The stroma is chiefly fibrous and is dotted with small, round and slightly angular cells, which in certain areas are very thickly aggregated and present the appearance somewhat of sarcoma, but they constitute, doubtless, only a young connective tissue. A few pavement-like cells on the edge of the section may possibly represent an endothelium.

In view of the possible sarcomatous nature of the cystoma the question of partial resection of the larynx was now considered, but after due consideration, the patient expressed herself as unwilling to submit to the operation without assurance of absolute necessity greater than we could give.

The larynx was not located deeply in the throat, and it seemed possible to destroy the remaining shreds of the growth and the whole seat of attachment by operating through the mouth with vulsellum forceps, scissors and galvano-cautery. This was the method adopted, but it required repeated operations, at intervals of two to three weeks, to thoroughly accomplish the result, for, notwithstanding the use of cocaine in spray and solution gradually advanced to the strength of 30 per cent., after the first two or three cauterizations or clippings, hæmorrhage and gagging interfered with further laryngoscopic observation.

The cartilages of Wrisberg and of Santorini were removed, and the upper neighboring parts of the ary-epiglottic fold, inter-arytenoid fold, and ventricular band were destroyed. The arytenoid cartilage remains, but it is partially anchylosed, which impairs somewhat the mobility of the left vocal cord. The cords are otherwise intact and the voice is very good. (Fig. 2.)

Two years have passed, and there is no sign of

recurrence. The tracheotomy tube, having been worn corked up for a time, was withdrawn at the end of a year. Healing of the opening was facilitated by occasional freshening of the edges by the cautery. It is now perfectly closed.

Annotations in Retrospect.—Certain queries arise cancerning the treatment adopted, and first, Was tracheotomy necessary? Fundareno's[15] case terminated successfully without it. "A soft tumor of the size and shape of a walnut blocked up the posterior half of the laryngeal cavity. An incision was made into the cyst with the laryngeal knife of Bruns, when a clear fluid mixed with granular and fatty matter escaped. Then it was seen to be attached over the right arytenoid cartilage. The cystic membrane was removed and the place of attachment cauterized with chromic acid."

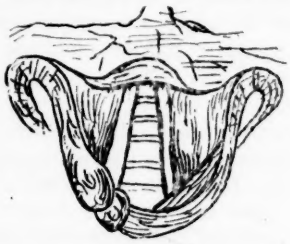

FIG. 2.—After operation.

Should an anæsthetic have been administered? Death therefrom was certainly averted only by prompt albeit deliberate action. But the American surgeon does not contemplate with equanimity the operation of tracheotomy without anæsthesia. No little surprise was occasioned by the discussion which recently waged in France relating to tracheotomy with or without an anæsthetic in cases of membranous croup, in which condition, in America, it is always administered, notwithstanding dyspnœa, unless the patient is already moribund.

But these are not wholly analogous cases, and another time, with a tumor similarly situated, requiring quasi-voluntary muscular action to maintain patency of the respiratory passages, I would make the tracheotomy with only local anæsthesia by ether spray to the skin and cocaine spray to deeper layers as reached, aided perhaps by hypodermics of cocaine.

Concerning the duration of development of the cystoma, it seems more reasonable to assume that a small cyst, quiescent, or of very slow growth, had existed for years, as indicated by the slight disability in deglutition, and that this was stimulated to active growth by the acute inflammation of the surrounding parts contracted on "Decoration Day," rather than to suppose that the neoplasm had been wholly formed in the short period of six weeks, which intervened between the eventful "Decoration Day" and the time of our first examination.

The suspicion first entertained of a sarcomatous element in the case, we believe to have been reasonably excluded by the subseqnent course of events, and that we had to deal merely with an immense cystoma which originated in a simple mucous retention cyst. An analytical record of cases is given.

TABLE OF CASES OF CYST OF THE ARYTENOID REGION OF THE LARYNX.

No. Date.	Operator or Reference.	Sex.	Age.	Previous Duration of Symptoms.	Situation and Extent.	Points of Attachment.	Pathological Nature.	Treatment.	Result.
1 1882	Chiari and Casselberry, Schrötter's Vienna Clinic, Sec. in Laryn., Tenth Int'l Congress.	Male.	30	None . .	Right ary-epiglottic fold near the arytenoid, size of small split pea.	Same	Simple retention cyst.	None	None.
2 1889	Moncagé and Garel, "Internat. Centralb. f. Laryn., Rhinol.," etc., Bd. vi, S. 608.	. . .	.	. . . . .	Ary-epiglottic fold. . .	Same	Fibrocystic tumor.	Removal by galvano-caut. snare.	Presumably cured.
3 1889	Fundarena el Seglo Medico, Apr. 21, Jour. of Laryn. and Rhin., Vol. iii, 1889.	Male.	30	. . . . .	Right arytenoid region, size of a walnut, covering two-thirds of larynx.	Mucous membr'ne over right arytenoid.	Cyst.	Evacuated, cystic memb. removed, base cauterized with chromic acid.	Presumably cured.
4 1890	Casselberry, Tenth Int'l Med. Congress, Sec. in Laryngology, Berlin, 1890.	Female.	30	Six weeks.	Left arytenoid region, size of large black walnut, covered all but anterior angle of glottis; seriously impaired deglutition and respiration.	Mucous and submucous tissues over left arytenoid region, ary-epiglottic fold & ventricul'r band.	Cystoma. . .	Evacuated, removal by vulsella, scissors and bistoury; thorough cauterization of base by galvano-cautery.	Cured, remains well after 2½ years.

In our own case the tumor was larger, firmer, the diagnosis at first uncertain, whilst the dyspnœa demanded immediate relief and rendered hazardous any attempt at operating *per vias naturales* without an independent artificial opening for respiration. And subsequently, by reason of the ready induction of spasm of the glottis, it would have been quite impossible, without tracheotomy, to have effected that thorough destruction of the seat of attachment, so desirable on account of the possible sarcomatous nature of the neoplasm.

[15] Loc. cit.

MEDICO-LEGAL NOTES.

BY HENRY A. RILEY, ESQ.,
OF NEW YORK.

HYPNOTISM.

The subject of hypnotism continues to attract great attention, both in the public journals and at the meetings of learned societies. At a recent meeting of the Medico-Legal Society of New York a committee made a preliminary report, and this was, at a later meeting, discussed by the members.

Dr. E. P. Thwing said: The trance sleep is not a disease, although neurotic conditions predispose to it. Nor does sensitiveness to hypnotic influence imply small brain power. Hypnotism is not necessarily productive of harm, and in many cases in medical practice has proved valuable.

There was a decided difference of opinion as to the value and propriety of public exhibitions of hypnotism. Several such exhibitions have been given in this city, some of which have attracted attention from physicians as well as from the curious and investigating public.

Dr. Paul Gibier, the well-known head of the Pasteur Institute, approved of public exhibitions in so far as they served to bring to light new truths of interest to science. It will be of interest to recall the fact that the city authorities of Cincinnati, at the suggestion of Dr. Prendergast, the Health Officer, have prohibited all public exhibitions in that city.

TAKING AWAY THE CHARTER OF A MEDICAL COLLEGE.

A bill is now pending in the New Jersey Legislature to annul the charter of the Medical and Surgical College of the State of New Jersey. The measure has already passed the Senate, and has been favorably reported in the house. It was introduced at the request of the Hudson County Medical Society, which recently adopted resolutions to the effect that "several members of the faculty are either incompetent to deliver lectures on the subjects assigned them, or are graduates of disreputable or fraudulent medical colleges; that the facilities for instruction are inadequate; that the requirements of the charter of the College are far below the minimum requirements of medical colleges adopted and demanded by all the medical authorities at the present time."

The State Board of Medical Examiners is urging the passage of the bill.

STATE REGULATION OF VICE.

The New York Committee for the Prevention of State Regulation of Vice met recently and adopted a protest against the passage of a bill, pending in the New York Legislature, to lower the age of consent on the part of young girls to their own ruin from sixteen to thirteen years. The committee also passed a resolution in favor of the appointment of women matrons at the police station houses in New York City.

It is pleasant to state that in all probability both of these recommendations will be effective, and that the Legislature will hardly dare to lower the age of consent, while there seems to be no special opposition to the police matron law.

CREMATION AND THE LAW.

In England very recently three prominent men have been cremated — Baron Huddleston, Mr. Charles Kinglake, and the Duke of Bedford — and some of the papers are discussing the legality of this method of disposing of the dead. The decisions seem, however, to have settled the point. In a very elaborate decision some few years ago, by Justice Stephen, it was held that it was not a misdemeanor to burn a body unless it was so done as to create a public nuisance, or done in order to prevent the coroner holding an inquest on the body.

In this country there has never been any serious discussion of the question in the courts, as the legality of cremation seems to have been conceded. It does not appear, however, that the custom of burning the dead is becoming very much observed.

PRACTICING WITHOUT A DIPLOMA.

The New York County Medical Society frequently brings into court persons practicing medicine who have no legal right to do so, not having diplomas; and the convictions are quite numerous. In a recent case the offender had been before the court once before, but claimed that his lawyer had given him a paper which purported to be a decision reversing the former conviction. The lawyer was a shyster, who is now serving a term in the State Prison for forging a divorce decree. The Judge said that it was simply a case of a medical shark falling into the hands of two legal sharks, and sentenced the bogus doctor to imprisonment for 100 days in the penitentiary, together with a fine of $100.

BOARDS OF HEALTH MUST PAY FOR MISTAKES.

In Massachusetts it was recently decided that the law permitted Boards of Health to kill horses infected with the glanders, but that it did not free them from liability if they killed animals which did not, in fact, have the disease. In such a case they would be liable in damages.

INFECTED MEAT IN NEW YORK.

The amount of bad meat, fish and vegetables seized each year in New York City by the officials of the Board of Health, would surprise almost every reader. According to the report just prepared there was confiscated 1,200,000 pounds of tainted meat and fish, and 1,056,000 pounds of bad fruit and vegetables. The milk inspectors

examined 97,000 samples of milk, and caused 299 arrests for milk adulteration. Milk was found for sale in over 6,000 stores in the city.

HOW TO RUN A SLAUGHTER-HOUSE.

The following is the direction given in a Michigan suit for the proper management of a slaughter-house: "Complainants are entitled to a decree requiring defendant to remove from his premises every day all manure, blood, offal, hair and other refuse of his establishment, in covered garbage wagons, such as are in use by the Board of Public Works in the city of Detroit, or in other wagons that will effectively avoid the spread of offensive odors; to thoroughly clean, cleanse and disinfect his premises daily; to provide sufficient pens for the hogs in store so that they shall not be crowded and rendered noisy and quarrelsome by discomfort while in confinement, and to use such other precautions as are necessary to render his place of business clean and wholesome."

MEDICAL PROGRESS.

Therapeutics and Pharmacology.

TREATMENT OF TYPHOID FEVER WITH CHLOROFORM.—DR. STEPP, of Nürnberg, contributes to the *Münchener Med. Wochenschr.* an account of the excellent results he has obtained in the treatment of typhoid fever with chloroform. The drug is given in 5 minim doses thrice daily. He claims for the medication a direct and favorable influence upon the course of the disease; the tongue becomes moist, somnolence and delirium disappear, and immediate improvement is noted in the general condition. The temperature is usually lessened in from eight to ten days, relapses occasionally occurred, and he notes the death of one patient. The fever stage averaged, in severe cases, nineteen days; in lighter forms, eight days.

The writer thinks that the chloroform is absorbed directly into the blood, where it exerts a specific anti-bacterial effect. He has never observed unpleasant consequences resulting from the medication.

PILOCARPIN IN CHRONIC RHEUMATISM.—DR. HOCHHOLT, physician to the Pest Hospital (*Semaine Médical*, July 2, 1890), reports excellent results in chronic rheumatism, accompanied by effusion into the joints and some thickening, with pilocarpin. Coleman Korda, a confrère of his, had observed similar good results ten years before. Korda attributed the favorable action of the drug to its power of increasing tissue change, aiding elimination and thus favoring the absorption of inflammatory exudates. It is to this property that the drug owes its value in ophthalmology and otology. Pilocarpin is of added value from the fact that we have no remedies useful in the chronic joint affections of rheumatism, the ordinary drugs, salicylates, antipyrin, etc., being useless in these conditions.

Physiology.

THE PENIS PERCUSSION REFLEX.—We learn with each year a few additional objective signs of disease, and with these come increased precision in diagnosis. It is but a few years since the significance of absence or variation of the patellar tendon reflex has been understood, though the phenomenon of contraction of the thigh muscles when the tendon was struck, must have been known to the school boys of ancient Rome. Since the diagnostic value of alterations of this reflex have been learned, many others have been found and studied. The last is announced by DR. C. H. HUGHES (*Alienist and Neurologist*, January, 1891), under the term "virile reflex," because if it is impaired or lost, in a person with a healthy spinal cord, it indicates a loss or abeyance of the sexual function. The reflex is produced by grasping the penis by the foreskin, between the index finger and thumb, and pulling the organ firmly toward the umbilicus, at the same time allowing the ring and little fingers of the same hand to rest upon the dorsum of the organ. If, while in this condition, the organ is struck sharply a distinct retraction of the bulbo-cavernous portion will be felt. Dr. Hughes says that it is often, but by no means always, found in sympathy with the other reflexes of the lumbo-dorsal spine. He has found it absent in old men who have acknowledged complete virile incapacity, and also lessened in neurasthenia and masturbation.

If it shall appear upon further investigation that the claims made by Dr. Hughes are correct, we certainly have a valuable diagnostic sign in a considerable number of medico-legal cases. It is a common thing for men, especially those advanced in years, if accused of sexual crimes, to plead total impotency. So far as the examination of the medical jurist is concerned, he can only report as to the conformation of the organs. The virile power is beyond his investigation. Then, too, it ought to prove of differential diagnostic value in forms of psychical impotency. We sincerely hope that the sign may prove to be true, as it will then prevent the somewhat unfortunate *contretemps* of a man being convicted of bastardy, and his wife obtaining a divorce on the ground of impotency, at the same term of court.

RESULTS OF SECTION OF THE CORPUS CALLOSUM.—KORÁNYI (*Pflüger's Arch.*, xlvii, p. 35), in Golz's laboratory in Strasburg, has divided the corpus callosum in a number of dogs, and finds that, provided other parts of the brain be not injured, especially the cerebral hemispheres, there

are no symptoms whatever resulting from the lesion. Both halves of the body appear to retain their normal motor and sensory functions, and appear to act in unison together.

Obstetrics and Diseases of Women.

DANGER OF VAGINAL INJECTIONS.—DR. ROULIN (*Journal de Médecine de Paris*, December 14, 1890), describes three cases where women suffered from severe symptoms after the use of vaginal injections, administered by themselves when in a sitting position. The first used the douche can, fixing it rather high on the wall. Immediately after the injection violent hypogastric and lumbar pains set in, followed by vertigo and vomiting. The abdomen was not sensitive on pressure, though pain was intense. Metrorrhagia followed and lasted for two or three days, but the pain ceased in twenty-four hours. The second case was almost precisely similar, excepting that the patient had used a hand syringe, and the symptoms were less severe. The third case also used a hand syringe. She felt a pain like a blow across the belly, but continued the injection; when it was ended lumbar and abdominal pains came on severely, with rigors and chattering of the teeth, but no vomiting. The symptoms recurred on the next day when the patient got up, but on the third day she felt well and free from pain. Dr. Roulin employs laudanum enemata for these cases. The cause of the pain is obscure. The fluid rushing into the uterine cavity may act as a foreign body and set up conditions sometimes provoked by catheterism. The admission of air into the uterine sinuses has been, according to Depaul, the cause of sudden death during douching of the cervix to produce abortion. Dr. Roulin believes that water may have entered in his cases. He insists that patients must be taught how to administer vaginal injections to themselves. The patient must lie on her back and only introduce the nozzle for a short distance; nor must she play too strong a jet of fluid into the vagina.—*British Medical Journal.*

Bacteriology.

VIRULENCE OF TUBERCLE BACILLUS.—PROFESSOR A. MAFFUCCI, in a preliminary communication (*Centralbl. für allgemeine Pathologie u. pathologische Anatomie*, Band i, No. 26, December 15, 1890) concludes that all Hammerschlag's experiments with the alcoholic extracts of pure cultivations of tubercle bacillus cannot, in face of the clinical nature of tuberculous disease in the human subject, be looked upon as conclusive. There is, however, he considers, some poison developed by the tubercle bacillus, especially in older growths, which by its action produces marasmus, apparently by interfering with the nutrition of the cellular elements of the body. What relation the bacilli and their products bear to inflammation, fever, marasmus and degeneration, he is not prepared to state; but the experiments that he has recently made confirm those that he published in 1879, in which he found that the tubercle bacillus from a mammalian, when injected into a laying fowl, caused the embryos from the eggs to die with all the characteristic features of a marasmus. He has observed the same thing in the hens themselves when they have been inoculated with "perlsucht," and even with active cultivations of the tubercle bacillus from mammalian animals; whilst, from clinical observation, he is also of opinion that the caseous masses in tuberculous individuals are the exciting cause of the marasmus that is so frequently met with in patients affected with tuberculous glands, bones or joints, and in cases of tuberculous phthisis. He has now carried on a series of experiments on guinea pigs with pure cultivations of tubercle bacillus (from mammalian animals) which had been allowed to grow for one, two, three or six months on consolidated blood serum to which glycerine had been added, or on fluid blood serum alone. The culture was then sterilized at a temperature of 65° to 70° C., continued for one or two hours, or by intermittent sterilization. Cultures of more than six months' standing were found to be already sterile, and were therefore not specially treated. Any of these sterilized cultures introduced into guinea pigs induced, in from fourteen days to six months, marked wasting, but no tubercle bacilli could be found by histological examination or by cultivation. There was usually congestion of the lung and of the kidney, the splenic follicles were wasted, the pulp was also atrophied, but was usually somewhat congested, and considerable quantities of pigment might be observed in the pulp cells, and even lying free outside them. The atrophy, however, was almost invariably well-marked, and the liver cells were usually considerably wasted. He concludes that this toxic substance is not destroyed in the body of an animal which dies from marasmus, and he holds that these observations must have a very important bearing on the ultimate success or failure of Koch's treatment.—*British Medical Journal.*

BACTERIA IN THE AIR.—PROF. ROSTER of the Intituto degli Studii Superiori, of Florence, has recently examined the air of the island of Elba, and comes to the following important and practical conclusions: 1. The air of an island, even when of considerable size, contains fewer bacteria than the mainland. 2. When the wind is off the sea the number of bacteria is enormously decreased. 3. A comparatively narrow arm of the sea is sufficient to purify the air blowing over it. 4. Atmospheric bacteria increase in proportion to the velocity of the wind. 5. Rain is the most important factor in purifying air of its contained germs.

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SATURDAY, MARCH 7, 1891.

THE LESSON OF THE FILARIA SANGUINIS HOMINIS.

The greatest achievements of medicine in the past have been in clinical observation, those of the present are in biological investigation. The uncertain methods of the former are reinforced by the verdict of a jury of the profession at large; the positive decisions of the latter must be confirmed by the same method after they are handed down by the expert. No more brilliant study of parasitism is to be found in the annals of biology than that which this little hæmatozoan furnished.

DR. RUDOLPH MATAS in the January number of the *New Orleans Medical and Surgical Journal*, cites a case of parasitic chylocele, which illustrates the rational treatment of this disease, following a positive diagnosis and relative indications dependant on an exact knowledge of the life history of the filaria. This article is a model of medical literature, and it should be carefully studied by every physician on the Gulf coast. It is another witness to the richness of the New Orleans clinic in tropical and sub-tropical diseases, and promises for that city an opportunity for medical study and clinical investigation of these diseases, without the dangers which attend a residence in the tropics.

The relation of the filaria to chyluria was first noticed by WACHERER in Bahia in 1866, but DEMARGUAY had found and described the same wormlike form in the chylous fluid from a hydrocele in 1863. This little worm, however, did not escape the penetrating eye of DR. J. H. SALISBURY, who, in 1868, named it "trichina cystica." LEWIS, of Calcutta, first found the embryonic worm in the circulating blood, and the mature and living male and female in a piece of scrotum amputated for elephantiasis. The most interesting and brilliant chapter in the history of our little animal is associated with the name of PATRICK MANSON. It was long known that the embryonic and a sexual filaria lived equally well in the blood and lymph, and that their presence there depended upon a mature and sexual female of comparatively prodigious size confined in some lymph space, usually in the scrotum. None of the myriads of embryos ever became sexual while in the original host. The sexual liberator was supposed to lie in some intermediary host. It remained for BANCROFT, of Australia, to suggest (1877), and MANSON, of China, to prove (1881), that the mosquito is the sexual liberator of the filaria sanguinis hominis.

The adult sexual filaria has never been found outside the lymph glands or lymph sacs. There the female is coiled up and her uteri and vagina are crowded with embryos in various stages of development. During the night the free embryos are found in enormous numbers in the blood of the patient; but during the day the blood is free from them, as MANSON first proved. This periodicity points to a remarkable adaptation when we learn that the nocturnal mosquito dips her proboscis into the circulating blood and fills her stomach with a drop of blood containing sometimes one hundred and twenty embryo filariæ. Some of these are carried, directly or indirectly, to a second host to become sexually mature worms, and give rise to all the symptoms of invasion with the embryos. We can not recount all the interesting and astonishing features of this rare parasite. It may be compared with the filaria of the dog, which does become sexually mature in the primary host, and with the plasmodium malariæ, which shows a parallel periodicity.

In the United States, the appearance of the filaria has been studied by three careful investigators, GUITERAS,[1] MASTIN,[2] and DR. SAUSSURE,[3] and although the climate of Southern United States is barely subtropical, a very astonishing number of native cases have been presented, mostly from Charleston. The pathology and clinical history of the chylocele of the tunica

[1] Medical News, April, 1886.
[2] Annals of Surgery, 1888.
[3] Medical News, 1890.

vaginalis testis has been first fully demonstrated by MASTIN, and we are proud to say his demonstration has borne fruit in the successful treatment of a case by DR. MATAS, to whom we are indebted for the opportunity of calling attention to this subject again. We predict that imported cases will be found in the Northern States, and trust that every case of chyluria, chylocele, elephantiasis, suppurating multiple lymphadenitis, chylo-thorax and chylous ascites will receive careful clinical examination for this parasite.

This is a typical obligate parasite and, as might be predicted, it is not destructive to its host. Patients live for many years under proper conditions, and their chief source of danger is from infection with more destructive parasites, such as the erysipelas coccus and the pyogenic bacteria. Recovery from the uncomplicated disease is the rule when the patient emigrates to a cold climate, or, otherwise, when the parent worm is removed by operation or dies from natural or accidental causes. The prognosis without emigration depends largely on the number of sexual females in the host and the risk of wound diseases.

The remarkable effect of a cold climate on this parasite, resulting in the death of the pregnant female and consequent disappearance of the disease, furnishes an analogy which should be remembered, not only in its narrow application to malaria, but to all parasitic diseases. For, however uniform the conditions of human vitality seem to us to be at all times and in all places, we have indubitable evidence here of such vital changes as result in the death of an otherwise permanent parasite. In these times of vigorous therapy, let not so important a suggestion go unnoticed, but let it furnish a theme for meditation, for hypothesis, for investigation, and for scientific deduction.

FUNERAL REFORM. DANGERS OF DECORATION DAY.

The *Lancet* inveighs against the practice of so conducting funerals as to endanger human lives. The past winter has been unusually chilly and cold in England, and the editor of the *Lancet* has had occasion to notice not a few distressful consequences due to the standing of participants at funeral exercises with their heads bared. In fine weather this mark of respect may very well be observed, but in the winter time it is too liable to be attended with grave risks to be looked upon with favor by medical men. The editor commends the shortening of the out-door services in cold and stormy weather, as has been voluntarily undertaken by some of the clergy, and the keeping of the hat on the head except for a moment or more at a time when the word "Amen" after prayer, or some like passage, is pronounced by the clergyman. Standing with the head bared is indeed a seemly token of respect to the dead, but a due regard for the living teaches us that a reform in this particular may properly be expected before this century closes. The dangers of Decoration Day deserve consideration here. We hold that it is unfortunate that that holiday has been located so early in the year, while yet the soil of our cemeteries is saturated with damp and unoxidized deposits of a winter's harvest of snow and frost, and mould and vegetable decay. We have seen too many instances of injury to health and of death even, caused by that kind of filiality and loyalty which leads the families of departed patriots and others to decorate the last resting-places of their loved ones, to be admirers of the practice from the standpoint of health preservation. This act of respect has, in not a few instances, been the occasion of a second visit, soon after, to the cemetery, for the purpose of closing up a newly made grave due to Decoration Day exposures.

VENESECTION.

It is quite a noteworthy coincidence that the subject of venesection has been the theme of extended and favorable comment, within the past fortnight or so, in London, Edinburgh, and in this country. Were it not for the very evident modification of the remarks put forth the critic of to-day would fain be tempted to regard the flight of the past half century as a dream—that the heroic times of blood-letting were but as yesterday. And yet progress in medicine is but an awakening—after a variable lapse of time—to a due appreciation and proper regard of means. If, in a particular measure, it requires fifty years of slumber or ostracism to insure in it that which is truly good and for the public weal, we had best view it through our optimistic glasses, and complacently await the advent of the next *time-tried* expedient. Experience teaches us—and very

plainly in this case of venesection—that it is useless to look for any *one* means by which to combat the whole diversified army of disease. This has been clearly illustrated by history, notably of the last one hundred years. Enthusiasm—professional enthusiasm—in the direction of meteoric medicine, if we may be allowed the expression, is commendable to a degree, but yet is inevitably disastrous. This was certainly the result with venesection. It was relegated to such oblivion that the student of medicine during the past two decades at least, has scarce heard it mentioned, and never observed its use. And so it has been—with few exceptions—throughout the entire field of medical research. History repeats itself almost daily upon this point.

When DR. PYE-SMITH read his paper, entitled: "The Therapeutical Value of Venesection; its Indications and its Limits," before the Royal Medical and Chirurgical Society, it is interesting to note how conservative, not only the title and contents of DR. PYE-SMITH'S contribution, but its reception by the Society and the discussion which followed the paper. Some of the foremost medical men of England came forward with their opinions—well-washed by the ever-lapping waves of Time—and humbly laid them down at the feet of Record. O Shades of fifty years agone! O Whilom Hero of the Lance, pray heed e'en this faint justification! Contumely hides her scrawny lines and a newer light—and brighter—bids fair to shine!

Physicians and Surgeons alike, at this meeting, expressed themselves in favor of venesection in those cases wherein depletion was clearly indicated, viz., and more particularly, first, in cyanosis with distention of the right side of the heart, whether from pulmonary or some other obstacle to the circulation; secondly, the intense pain of aortic aneurism; and thirdly, uræmic and prolonged epileptic convulsions.

DR. PYE-SMITH justifies himself fully—which the discussion bears out—by the statement that he felt the time had come when it could be shown that, if rightly used, venesection was a valuable remedy.

ANOTHER DEATH FROM CHLOROFORM.

Another death under chloroform recently occurred at Indianapolis. A physician, without professional assistance, exhibited the anæsthetic to a patient previous to the opening of a mammary abscess. Death came quickly, and before the operation was commenced.

The *Indiana Medical Journal* editorially criticises the case, with the following conclusions:

1. That the administration of an anæsthetic by a physician for any purpose whatever, except in obstetrics and cases of emergency, without the presence of another physician, when such can be procured, is to be condemned.

2. In a large city like Indianapolis, where the services of an expert in anæsthesia can always be procured, the physician who does not avail himself of such services should be held to a strict accountability for any disastrous results that may occur.

3. The administration of a general anæsthetic, for the purpose of opening a mammary abscess, is wholly unjustifiable.

4. In view of the above unassailable propositions, the death of the above patient should not be attributed to an unavoidable accident, from the necessary and skilful administration of chloroform.

A LESSON IN LONGEVITY.

The *Medical Age* draws a lesson in longevity from the life of the late GEORGE BANCROFT, in which while it admits that there is no system of living which will insure longevity, yet, withal, there are certain considerations tending that way, and which, if carefully lived up to, offers probably the best chance of reaching close to, if not quite, the hundred year period. The following pertinent advice is given:

Live as much as possible out of doors, never letting a day pass without spending at least three or four hours in the open air.

Keep all the powers of mind and body occupied in congenial work. The muscles should be developed and the mind kept active.

Avoid excesses of all kinds, whether of food, drink, or of whatever nature they may be. Be moderate in all things.

Never despair. Be cheerful at all times. Never give way to anger. Never let the trials of one day pass over to the next.

The period from fifty to seventy-five years should not be passed in idleness, or abandonment of all work. Here is where a great many men fail—they resign all care or interest in worldly affairs, and rest of body and mind begins. They throw up their business and retire to private life, which in too many cases proves to be a suicidal policy.

During the next period—the period from seventy-five years to one hundred years, while the powers of life are at their lowest ebb, one cannot be too careful about "catching cold." Bronchitis is a most prolific cause of death in the aged. During this last period rest should be in abundance.

EDITORIAL NOTES.

RAILROAD TICKET ARRANGEMENTS FOR THE ANNUAL MEETING.—The Railroad Associations have agreed to sell tickets on the certificate plan, as last year, for one full fare going, one-third fare returning. *All must obtain a certificate on purchasing ticket to Washington*, OR THEY CAN NOT HAVE THE REDUCTION IN RETURNING.

AMERICAN MEDICAL COLLEGE ASSOCIATION.—The next meeting of the American Medical College Association will convene at the Arlington Hotel, Washington, D. C., at 8 o'clock P.M., May 4, 1891. The indications point to a very interesting session and a representation from a large majority of the Colleges of the United States. The special committee on permanent organization is at work, and will be ready to report at this meeting.

A GOOD RECORD.—The report of the Medical Department of Harvard College gives the total number of students enrolled during the year 1889–'90 as 304; and of these 156 had literary or scientific degrees—an excellent record in a very commendable direction. The force of a higher teaching and of sterner requirements is also shown by the fact that out of seventy-five applicants for the degree of Doctor of Medicine in the three-years' course, twenty-two were rejected; while out of fifteen applicants for the same degree in the four-years' course, two were rejected, and four received the degree *cum laude*. There is food for thought, as well as a decided plea, in these figures.

SOCIAL EVIL ACT.—The Legislature of Missouri has listened to the second reading of an Act for the regulation of prostitution. The fundamental points of the bill are patterned after the German laws, which have proved to be ineffective.

LEPROSY IN MINNESOTA.—The State Board of Health of Minnesota report sixteen cases of leprosy within its jurisdiction. It is quite entirely among emmigrants.

AIDS TO MILITARY FIELD SERVICE.—The French have adopted a very simple yet serviceable plan of supplying each soldier with a packet of surgical dressings suitable for immediate use, and always present. The packet consists of antiseptic gauze, absorbent cotton, and bandage, together with two safety pins. All this is folded compactly, surrounded by oiled silk, stitched within another covering of durable material, which renders it waterproof, and sewed upon the inside of the clothing over the left breast.

NEW COLLEGE BUILDING.—Plans are out, furnished by S. S. Beman, architect, for a new four story building for the Chicago Medical College. It is to cost one hundred thousand dollars, and is to be located on Dearborn St., near Twenty-fourth.

COLLEGE SOCIETIES.—That medicine is gradually acquiring that recognition to which its nobleness and scientific character entitles it, is indicated—to a degree—by the establishment and progress of fraternal, Greek-letter chapters at the larger and more progressive centres of medical learning. The *Nu Sigma Nu* confraternity (Medical) held its ninth annual meeting at Detroit recently, there being a representation from chapters located at Ann Arbor, Detroit, Pittsburg, Philadelphia, and Minneapolis.

HARVARD ALUMNI IN NEW YORK CITY.—The graduates of the Medical department of Harvard, now residing in New York City, have of late organized into an association. Monthly meetings will be held.

PRACTICAL LECTURES IN PRACTICAL FIELDS.—A free course of practical lectures is announced for mothers and nurses, at the New York Post-Graduate Medical School. Among the subjects to be treated are the following: "The Care of the Eye;" "The Most Frequent Surgical Incidents in Infancy and Early Childhood;" "The Care of the Skin in Health and Disease;" "Practical Points in the Nursing at the Babies' Wards as Employed in Lung Diseases, Fevers, Intestinal Diseases, etc.;" and "Infant Feeding and the General Care of Young Children."

THE WAY THEY DO AT VIENNA.—Late correspondence to the *Medical Record* rehearses the details of a sudden death upon the operating table—from the occurrence of an air-thrombus, as was shown by the autopsy—and following the operation for the removal of a goitre. It was at Billroth's public clinic, and the absence of measures which aid recuscitation was notable, however impossible of success their application might have been. Yet it was the events following, more than the "shadows before," which are

unique, as will be illustrated by the following quotation: "A most unpleasant impression was made on all the foreigners present by this tragic spectacle, and one could not but be struck by the unshaken coolness with which the surgeon, after the dead body of his patient had been carried out, proceeded immediately to perform a goitre extirpation on a second case—this time with a happier result."

MEDICAL LEGISLATION.—A bill to regulate the practice of medicine in California has been introduced before the legislative assembly at present in session. The bill provides for the establishment of a State Board of Medical Examiners consisting of seven members, appointed by the Governor, one from each of the well-established medical schools, and the others at large.

BROMOFORM, which has recently received wider endorsement in the treatment of whooping cough, was first brought forward as a remedy in this disease by Dr. Stepp, of Nürnberg, in 1889, who spoke of its value by both inhalation and internal administration. According to *Phar. Zeitsch. für Russland*, Stepp administered it in the following manner: bromoform 10 drops, alcohol 3 to 5 c.c., aqua dest. 100 c. c., syrupus 10 c. c. A cure is claimed in from five to ten days.

FOREIGN BODY IN THE MALE BLADDER.—Dr. Geo. H. Monks, of Boston, mentions in the *Boston Medical and Surgical Journal*, the removal by perineal section, of a piece of lead pencil over two inches long from the male bladder. The substance had been introduced by the patient with a view of overcoming a stricture of the urethra.

MEDICAL ITEMS.

MEDICAL LEGISLATION IN MISSOURI.—There is now pending in the Missouri legislature a bill to compel all medical colleges in the State to adopt three courses of lectures as a condition for graduation. All of the medical colleges in the State, excepting one, are favorable to the bill.

THE ILLINOIS STATE BOARD OF HEALTH has decided that hereafter it will recognize no foreign diploma that does not confer upon its holder the right to practice medicine in the country in which it was granted. The holder of an Austrian, a German, Russian, or Swiss diploma, wishing to practice in Illinois, must hereafter pass an examination before the Board, unless he have a pass certificate from a government examining commission. The holder of a Canadian diploma, unless a licentiate of the College of Physicians and Surgeons of Ontario and Quebec, must pass an examination in order to be licensed in Illinois.

THE PREVENTION OF NARCOTIC INEBRIETY.—At a meeting of the American Association for the Cure of Inebriety, held February 18, at the Academy of Medicine, New York, Dr. J. B. Mattison, of Brooklyn, offered the following preamble and resolutions:

WHEREAS, a leading cause of morphinism, chloralism and cocainism is the facility with which morphine, chloral and cocaine can be procured from pharmacists: and,

WHEREAS, the refilling of prescriptions containing these drugs is a potent factor in the rise and growth of these diseases:

Therefore, be it resolved, as the sense of this Association, that no retail druggist should sell morphine, chloral or cocaine, except on a physician's prescription.

That no prescription containing morphine, chloral or cocaine should be refilled except on the written order of a physician.

These were unanimously adopted, and a committee consisting of Drs. Mattison, Crothers and Wright, was appointed to secure legislation along the line of the resolutions.

IN future all candidates for medical degrees in France must produce a certificate of re-vaccination according to the regulations, otherwise they will be debarred from registration.

THE STATE BOARD OF HEALTH OF MAINE has introduced a bill into the legislature to provide for the registration of vital statistics. The bill was prepared by the State Board of Health after an extended examination of the existing laws of other States, and an effort is now being made to secure its passage. It seems almost needless to point out the value of such a bill. An official registration of births, marriages and deaths, in such a form as to make it furnish facts available and valuable for various purposes, is considered so important a work that most civilized States and nations have not omitted to provide for it. Vital statistics, when properly collected and recorded, are invaluable for a variety of purposes which will readily suggest themselves, and it is, therefore, somewhat remarkable that the State of Maine should have thus far neglected to provide for their registration.—*Sanitary News.*

TOPICS OF THE WEEK.

THE LONDON LANCET.

For years this valuable journal has occupied a foremost position in the field of medical literature.

It has achieved a success of which any Briton may justly be proud, and we, as Americans, are none the less ready to accord to it the preëminence which by the herculean labors of its founder it finally came to command. The difficulties which it encountered were simply immense; but by reason of these its triumphs were the more conspicuous. Medical journalism has everywhere its obstacles—hindrances, criticisms and discouragements—and those who become familiar with the earlier history of *The Lancet* will discover that such besetments are by no means peculiar to medical journalism in America.

We are confident that American readers will be deeply interested in a brief recital of some of the earlier experiences of *The Lancet* as given recently by one of its correspondents, and we quote from his article as follows. He says:

I have recently had the curiosity to go through the files of *The Lancet* with the object of discovering and recording if possible the tone and aims of that journal from its inception, and the enormous labor has been amply repaid by the discovery of the rich mine of wealth which the volumes contain. I believe I have discovered the secret of the unparalleled success and the high reputation of the chief organ of the medical profession. In one of the volumes I came across what may be called *The Lancet's* confession of faith. "*The Lancet* will perpetuate the memory of Thomas Wakley—the founder of this journal—by cherishing after his death the principles to which he consecrated his life." The solemnity of expression in the passage on the occasion of the death of the founder led me to further inquire by what motives he had been actuated, what such a memory and example required of his successors, and how far the solemn promise had been fulfilled by them. What had he to gain in requiring that medical men should be adequately rewarded for their labors? "I have," said Mr. Wakley in a public speech—"I have foresworn medical practice. I use only the lancet, and that in the form of a quill." From that time he became the champion of medical reform of all kinds. If we turn to *The Times* of 1827 we find that at that early period *The Lancet* gave the first blow to "cupidity and corruption, by establishing a free medical press, and rousing the profession to a sense of its injuries and indignities, and to a spirit of resistance." Mr. Wakley's great aim was always to uphold the rights of the profession as a whole by the adoption of straightforward courses of action. What has he gained for medical men? In former days, when scarcely a week passed without furnishing instances of imbecility and ignorance on the part of coroners, and the reports of insults borne by medical men who were, without fee or reward, compelled to attend these "worthless, expensive, and pernicious exhibitions," he raised his voice with no uncertain sound against such palpable abuses, and earned for himself no small share of obloquy from those who considered themselves injured by his fearless exposure of base principles. Unmistakable deaths from poisoning were recorded by coroner's juries from time to time as "Deaths by the visitation of God." Abuses so apparent soon roused him to most energetic action, resulting in his candidature and election for the office of Coroner for the Western Division of Middlesex at the enormous cost to himself of many thousands of pounds. From that time *The Lancet* has consistently supported the appointment of medical coroners, and now scores of medical men occupy that position. The Coroners Act, allowing the appointment of a permanent deputy coroner, and the Medical Witnesses Bill were introduced to parliament on his instigation and passed in consequence of his exertions.

As a direct result of his personal patience, an inquiry into the flogging to death of a soldier at Hounslow Barracks led to the abolition of flogging in the army. His keenest shafts, however, were aimed at empiricism and cant, "the *prima materia* of the devil," as Carlyle called it. He hated shams, and loathed the feebleness which succumbs to mere authority. He succeeded to a great extent in rescuing the very institutions which were established to prevent quackery from the quagmire of empiricism into which they themselves had fallen. His attack on the faults and absurdities connected with medical education should render the medical student of to-day, perhaps more than anyone else, grateful to the founder of *The Lancet*, for it is through his instrumentality that every student has now secured to him able and earnest teachers, and the right of using freely the opportunities which public hospitals afford him for his improvement. The first great battle by which the rights of a free medical press were established was won by Mr. Wakley on their behalf. Up to the year 1825, no clinical lectures were delivered in the hospitals, and no reports of the cases which occurred in them were published. The famous action of Abernethy *v.* Wakley established the right of the medical journals to print public lectures, and was a triumph for the press, the influence of which has been great and lasting. With regard to the decision in the case of Bransby Cooper *v.* Wakley, Sir James Scarlett, the opposing counsel, admitted "that the example of this proceeding has given to the periodical press a triumph and an influence which it never had before."

Mr. Wakley was one of the first to urge upon his medical brethren the necessity for their being represented in Parliament by members of their own profession; and, ever ready to practice what he preached, he submitted himself as Parliamentary candidate for Finsbury. Twice he went to the poll, and twice was he defeated. Undaunted, he went again to the poll at the next election, and was returned by an overwhelming majority. Before he had been many weeks in the House he began to manifest his care for the interests of the profession by asking questions of the greatest importance to its members, and throughout the whole of his Parliamentary career of twenty-four years was he the staunch champion of medical men, influencing the House to appoint select committees to inquire into abuses, introducing Bills, moving amendments, and in many other ways acting in their interests. He established a life assurance office for the pur-

pose of enforcing the payment by the various offices of the fees for the medical examination of their clients, urging that, as medical reports were given in the interests of the offices, payment of the fees should therefore be made by them. What is the direct result of this action at the present day? Every office now pays the medical fees, and I observed in a recent issue of *The Lancet* that during the past year one office had paid as much as £50,000 in recognition of the services of medical officers. In his threefold capacity of Member of Parliament for Finsbury, Coroner for West Middlesex, and Editor of *The Lancet*, he wielded a power unequalled by any other man in the profession, and was not slow to use it for the advancement of its interests and welfare. Perhaps one of the most important public functions performed on behalf of the poor by Mr. Wakley was the establishment of an Analytical Commission which exposed the adulteration of food, and converted the press into an instrument of police by establishing in *The Lancet* the precedent of publishing, fearless of all legal consequences, the name and address of the establishment where adulteration was carried on. In many cases he would add: "This is the third article which we have found adulterated—the public should avoid the shop." As a result, legal actions bristled around him, but such was the genuineness of his work that in not a single instance was an unfavorable verdict recorded against him. Some years after the establishment of his Analytical Commission, an Act of Parliament was passed requiring the appointment of public analysts throughout every district of the country. The public benefits resulting from this work cannot, indeed, be overrated.

What did he gain by the exertion of his indomitable courage on behalf of his professional brethren? Either as plaintiff or as defendant in the law courts Mr. Wakley must have fought some twenty-five or thirty actions, contesting in his own person with some of the leading barristers of that day over matters connected with the advancement of the profession at so great a personal expense that on several occasions the very existence of *The Lancet* was imperilled. He lent his aid in reforming the Lunacy Laws, and was always the defender of the rights and privileges of the medical officers of the united services and of the Poor-law administration. He was the champion of the Fellows and Members of the Royal College of Surgeons, who were unfairly treated by a Council then wholly irresponsible and self-elective. In regard to this body he maintained that when a few individuals were appointed to watch over the interests of a large body of men, it was quite necessary, in order to secure upright conduct on their part, that the interests of those few should be identified with those of the many. To this end he labored, exposing and denouncing the procedure of the "minacious oligarchy of our mismanaged temple," as he called the Council, and characterizing certain of the By-Laws then in force as "instruments of corporate iniquity." To attack abuses uncompromisingly wherever they existed, to spare no effort, toil, or trouble to effect reforms wherever they were required, to raise the profession as a whole from the lowly position it then occupied to such a level as it has now attained in public esteem, where some of the labors of a life remarkable at once for uprightness and disinterestedness of purpose.

> "I've heard of hearts unkind,
> Kind deeds with cold returning.
> Alas! the gratitude of men
> Hath oftener left me mourning."

The memory of Thomas Wakley should be written in letters of gold on the mind of every medical man. Examples and principles such as these are surely those which all should be proud to follow and adopt, for even now necessity for further reform in each and all of the directions I have indicated is not wanting. I earnestly hope and believe that you, the successors of so worthy an ancestor, will persist in the noble endeavor to carry out the promise made at the time when he ceased to labor among us, and in so doing—though you may easily fall short of the rare excellence which he at all times displayed—nevertheless you will have adopted a course which shall be honorable alike to yourselves and of the highest utility to the noble profession you have the honor to represent.

THE ELEVENTH ANNUAL REPORT OF THE NEW YORK STATE BOARD OF HEALTH.

Doubtless the most interesting point in the report of the State Board of Health for last year is the statement concerning the effects of the influenza which prevailed a year ago. According to the report, the number of deaths in January, 1890, was 13,000—larger than ever before and 5,000 in excess of the average for that month for five years. This increase is considered to have been undoubtedly due to the epidemic. There were 3.51 deaths per 1,000 population from zymotic diseases during 1890, against 3.90 in 1889. Typhoid fever had a lower mortality. Diphtheria also seems steadily to have declined in prevalence. Small-pox caused only four deaths during the year, two of which were reported from New York City, the others occurring in Cohoes and Dansville. Consumption caused about 12 per cent. of all deaths.

PROGRESS IN THE RIGHT DIRECTION.

A comparison of the Seventh Report of the Illinois State Board of Health, on Medical Education, with the one for 1890, shows that some marked changes have taken place in the past year, and when a review is made of the changes for the better since the session of 1882–1883, there is much cause for congratulation and encouragement. There are now 148 medical colleges of all kinds in existence in the United States and Canada, there being 135 in this country and 13 in Canada. In 1882 the number of colleges requiring certain educational qualifications for matriculation was 45; in 1886, 114; in 1889, 117; in 1890, 124; and in this report 129.

In 1882 the number of colleges that required attendance on three or more courses of lectures before graduation was 22; 1886, 41; in 1889, 47; in 1890, 64; in this Report, 85. Of the 148 colleges all have chairs of hygiene except 14, making 123 that teach this branch, while 119 now have chairs of medical jurisprudence.

PRACTICAL NOTES.

FOR NASAL CATARRH.

A writer in *L'Union Méd.* states that the following prescription is much used in London hospitals:

℞. Ammonii chlorid., 30.0.
Sodii chlorat., 75.00. M.

Sig. A teaspoonful to a glass of water, to be used twice daily as a nasal douche in post-nasal catarrh combined with deafness.

—*The College and Clinical Record.*

TO RELIEVE NAUSEA AND VOMITING.

A writer in the *Therap. Gazette* states that a mixture of 1 part of menthol, 20 parts of alcohol and 30 parts of simple syrup, will relieve nausea and vomiting—sometimes even the obstinate vomiting of pregnancy—if given in teaspoonful doses every hour.

TO PRODUCE ANÆSTHESIA OF THE SKIN.

A spray of chloroform, 10 parts; ether, 15; menthol, 1 part, produces complete anæsthesia of the skin, lasting for from two to six minutes.—*Pittsburg Med. Review.*

AN OINTMENT FOR PRURITUS OF THE ANUS AND VULVA.

Balfour reports that he has almost never failed to obtain relief, in cases of pruritus of the anus and vulva, from an ointment containing 80 grs. of calomel to the oz. of vaseline or other unguent.

FOR FURUNCULAR AFFECTIONS.

℞. Mentholis, gr. x.
Cocainæ hydrochlorat., gr. v.
Ung. resinæ, ℥j. M.

—Shoemaker.

MIGRAINE.

The following powder is recommended in *La Méd. Moderne* for migraine:

℞. Citrate of caffeine, 1½ gr.
Phenacetin, 2 grs.
Sugar of milk, 4 grs. M.

To be repeated, if necessary, in two hours.

WHEN SHOULD MEDICINE BE TAKEN?

The editor of the *Medical Summary* for November thus discourses on this topic: The proper time for the administration of medicines is of equal importance, in many instances, with the selection of the medicine itself. The sooner physicians realize this fact the better for the patients. A large number of medicines are used in a routine way, after meals; but too often, when so employed, they are not properly absorbed, or they hinder digestion, and thus undermine the foundations of nutrition. For example, if the bromides be given after meals their absorption is hindered, and their presence in the stomach interferes with the peptic ferment; so that, in addition to the depression caused by the bromide treatment, we have superadded that which follows derangements of digestion. Some medicines can be taken at any time, because of their diffusibility; other medicaments, in order to produce good results, should be exhibited after meals; and others again should be used only between meals, when the stomach is presumed to be empty. The administration of pepsin and pancreatin furnish excellent illustrations of these principles. When the secretions of the stomach are sufficiently acid, pepsin alone can be used in the course of half an hour after food; but if there be a lack of acidity, it will be advisable to combine the pepsin with an acid, preferably hydrochloric acid, which is the normal acid of the stomach. Should gastric digestion be slow or imperfect, a little more acid can be added from time to time, although there will be no need of increasing the amount of pepsin provided the peptones are taken up. In the use of pancreatin, on the other hand, the acid condition of the stomach will destroy its activity. This will not take place, however, if the pancreatin be taken with food just after the first mouthful is swallowed, or if the preparation be taken about two or two and a half hours after, when the contents of the stomach are supposed to be neutral in reaction.—*Medical Age.*

THE SPEEDY CURE OF TONSILLITIS.

The *London Medical Recorder*, October, contains the following prescription for the rapid relief of tonsillitis:

℞. Tinct. of veratrum viride, 30 minims.
Sulphate of morphia, 1½ gr.
Distilled water, 6 drachms.

M. Dose, one teaspoonful, given twice, with one hour's interval, at the outset of the treatment, and then at intervals of two or three hours, as may be required.

The author of the treatment holds that there is some kind of therapeutical agreement or harmony between the drugs, when used together, which gives them an efficiency not possessed by either of them when used separately. For example, the liability to nausea from either of them alone is greatly modified by the combination. He refers to a number of cases in which this treatment has seemed to produce unusually prompt relief, and he asserts that he knows of no drug or drugs which have the power to control tonsillar inflammation with the certainty and celerity of those agents when used jointly.

PRESCRIPTION FOR A CORYZA POWDER.

The *Lyon Médical* offers the following powder for inhalation in coryza: Menthol, 1 part, mixed with roughly powdered roasted coffee, 50 parts. Another contains menthol, 2 parts; hydrochlorate of cocaine, 1 part; and boric acid, 100 parts.

SOCIETY PROCEEDINGS.

Buffalo Medical and Surgical Association.

Meeting of January 5, 1891.

THE PRESIDENT, DR. A. A. HUBBELL, IN THE CHAIR.

DR. GEO. E. FELL read a paper on

FORCED RESPIRATION.

(See page 325.)

DR. HARTWIG said he regarded Dr. Fell's accomplishments as being of lasting value to the profession. He considered the use of the face-mask preferable in average cases of forced respiration, because it dispensed with the tracheotomy, which, of course, was not so readily carried out.

He alluded to Schultz's method of artificial respiration by swinging the patient. He was convinced, from his own observation and experience, that infants who were not too heavy to handle, could be revived in every instance where there was heart beat remaining, by that method; and reported a case in which he had, after working half an hour at a stretch before obtaining the first gasp, revived a child; though it died some thirty-six hours later from pneumonia induced by fluids entering the lungs. For larger persons there was no method comparable with forced respiration.

DR. PHELPS reported a case of forced respiration performed by himself and Dr. Mann, some eight or ten years ago, by introducing a catheter into the larynx of an infant still-born after a very troublesome breech presentation. They took turns, one blowing air from his lungs through the catheter, while the other applied pressure to the chest to force the air out. After two hours' continuous work the child breathed all right, and lived for several hours.

DR. ELI H. LONG: I want to thank Dr. Fell for his address this evening. I do not know but that I have done the Doctor the injustice of indifference to the claims of his method. I have refrained from criticism, but I must confess that I have not given it the attention which I probably ought to have done; and therefore I am all the more surprised and pleased at his explanation of it this evening. I believe very firmly in forced respiration, and with my experience with asphyxiated infants I am convinced that such cases can be saved by it that cannot be saved in any other way.

Dr. Long reported a case of severe asphyxia following a breech presentation, in which, after the use of the catheter in the larynx and supplying air from his own lungs, he had the child breathing after three fourths of an hour's work. The child lived twelve days. He had also had the pleasure of seeing infants live and thrive in several other cases in which he had resorted to the method of blowing the air directly from his mouth into that of the child, without the catheter.

DR. W. H. BERGTOLD: A remarkable case occurred in the experience of some friends of mine, which I think I can with propriety say a few words upon. It was the case of a boy who was brought into the hospital having every sign and symptom of tubercular meningitis. He was taken one afternoon, about one o'clock, with entire stoppage of respiration, suddenly, and with no premonitory symptoms whatever. The heart continued beating, firm, strong and regular. The house staff performed artificial respiration on him by Sylvester's method for four hours. The heart continued to beat during this time. When the house staff became pretty well tired out, the trachea was incised and a tube put in, with a sort of bellows arrangement. I do not know how nearly it compares with Dr. Fell's, because I have never examined his, and know nothing about its construction. Altogether this boy was kept alive twelve hours from the time his respiration first stopped. At the post-mortem, which I made the day after, it was found he had the most marked tubercular meningitis. The ventricles were enormously dilated, and there was only about three-fourths of an inch of cerebral tissue left from the cortex down into the ventricles. All of the contiguous tissue was absolutely diffluent. It was not softened, but it was almost like pus, and the medulla was also involved in this process. This case, of course, was absolutely hopeless because of the involvement of the respiratory centre in this process of sloughing. But it illustrates very beautifully what forced respiration will do, and it shows that Dr. Fell certainly did us a very great service in showing us how much can be accomplished by it.

DR. BARTLETT objected to the practice often resorted to and advised, of keeping patients in motion when suffering from an over-dose of morphia. He strongly recommended flagellation, which he had used for many years with good results, and for other than severe cases he considered it one of the best of methods. In severe cases there was probably no method which would compare with forced respiration.

DR. HARTWIG: I would like to ask Dr. Fell whether he would not be afraid of injecting alcohol or ether into a large vein on account of the possibility of thrombosis?

DR. FELL: If such a procedure were attempted at all, it should be done with the greatest precaution, and very slowly injected. In the case of J. B. we injected 8 ozs. of a normal salt solution, and I believe it would be safe to inject the smaller amount of brandy and ether which would be injected by the hypodermic method.

Regarding these other methods of artificial respiration, one significant point I wish to mention

is that forced respiration is more easily applied than any of them, even in infants, if you have the simple apparatus. Then again, in blowing air from the lungs of an attendant by the way of the tracheal tube, it must be recognized that the air passes to the lungs of the patient contaminated with carbon dioxide; we do not pass pure air into the lungs, and cannot expect as good results. It seems to me that Schultz' method would be pretty hard on the child, and harder on the practitioner—and that is the great objection to artificial respiration generally. Furthermore, regarding these vigorous methods, I believe that a great many cases are lost through them. In cases, for instance, where the asphyxia has been long continued, the bare fact of moving the patient about might in many cases produce just the condition which would cause death, through the loss of energy to the muscular tissues of the body; and the heart tissue also.

In narcotized subjects, I believe that means should be used in conjunction with the forced respiration, for combating the poison—atropia, digitalis, and every other means applicable. I think it of very great importance to keep up the energy of the system, even with the use of nutrient material, which will sometimes help greatly.

As to forced respiration being necessary in desperate cases only, if you have the apparatus, it should always be used in preference to artificial respiration because it accomplishes more, and is not conducted at the loss of the patient's energy, and is also less tiresome and easier to apply. As to flagellation, I do not know how valuable it is, but it seems to me that there are cases in which it would be of no value whatever, where forced respiration would be of great value. Only those who have witnessed the effects of forced respiration in a serious case can fully appreciate the full extent of its influence upon the system.

Another point that needs to be considered is, that it is not always the quality or the quantity of the narcotic poison taken that is of the first importance; but how long has the poisonous influence existed? For instance, a grain of morphia interferes with respiration and produces a cyanotic condition, with the heart tissue and the muscular tissue of the body losing energy through the asphyxiated condition. There you have an influence entirely outside of the influence of the poison, which indeed may be the controlling factor in the question as to whether the patient will live or not.

DR. BARTLETT: Will Dr. Fell kindly express his opinion as to the advisability of keeping the patient in motion?

DR. FELL: I think it unadvisable. After forced respiration is instituted the entire energy of the patient should be saved as far as possible, in my opinion. All that is required is to eliminate the poison and to supply the blood with oxygen. Do that in the easiest way possible, and you are doing all that can be done, except the using of antidotes advisedly. In opium poisoning it is always very important to catheterize the patient. Opium and morphia being eliminated mostly by the kidneys, this should never be forgotten, nor the injection of water into the rectum, and the administration of water to drink. As the poison is also eliminated by the stomach it may be advisable in some cases to carefully wash it out, but do not let any fluids pass to the lungs. In this way the patient will probably be enabled to eliminate the poison more quickly than by any other means.

DR. DORR: Do you from your experience, and from the case of this patient mentioned, think that those abscesses were caused by the brandy and ether or by a bad needle and infected instrument?

DR. FELL: I believe that the abscesses were caused by the brandy and ether, merely because after a few days there were circumscribed areas all over the region where the injections had been deposited.

DR. DORR: Merely because the capillary circulation was weak?

DR. FELL: Very weak, almost inert, owing to small quantity of blood in the system. I thought at first from rapid breathing it was pneumonia. Another fact worthy of mention is, that in none of these cases has pneumonia or any bronchitis been produced, not even in B's case, the indications were caused by pain over the region of hypodermic medication.

DR. DORR: Have you ever seen in any other case brandy and ether produce abscess?

DR. FELL: I never have.

DR. DORR: It is peculiar if it does in just this condition, because I have never seen it in any other condition.

DR. FELL: I believe it was entirely owing to the fact that the patient had lost so large an amount of blood. The capillary circulation must have been insufficient to carry off the brandy and ether.

DR. DORR: That is quite a physiological point.

DR. FELL: Another point I wish to emphasize is the adaptability of forced respiration in drowning and cases of asphyxia from whatever cause. The drift of this discusssion may give the impression that it is more useful in cases of opium poisoning than other cases of asphyxia.

THE PRESIDENT, DR. A. A. HUBBELL: I am sure we are satisfied of one thing, gentlemen, and that is that Dr. Fell can give us a good deal of light on the subject of opium poisoning and all cases of asphyxia, and his remedy certainly deserves a great deal of commendation, as it has in fact received it by so eminent an authority as Dr. H. C. Wood, of Philadelphia, and in such a public way.

FOREIGN CORRESPONDENCE.

LETTER FROM PARIS.

(FROM OUR OWN CORRESPONDENT.)

Koch's Lymph in the Hospitals and Laboratories of Paris—The Library of a French Doctor in 1609—Compulsory Revaccination of Medical and Pharmaceutical Students—Post-Guillotine Phenomena Observed in the Body of Eyraud—Portable Field-Dressings for French Soldiers—Hygiene at the Hair-Dressers.

The latest judgment passed by our leading medical authorities on this new treatment of tuberculosis are not of a favorable nature. The most sweeping condemnation of the method emanates from Professor Verneuil, the veteran surgeon of the Hotel Dieu, (formerly of La Pitié). At a clinical lecture recently delivered, the Professor summarizes the results yielded by Koch's treatment as follows·

1. Genuine and lasting cures—still unknown.
2. Temporary improvement—a few instances.
3. Improvement of any reasonable duration—much rarer.
4. Condition stationary after weeks of treatment—very common.
5. Temporary, but more or less serious local aggravation—ordinary result.
6. Persistent local aggravation—of common occurrence.
7. Serious complications set up in normal or non-tuberculous organs—frequent.
8. Early fatal complications from local aggravation or the setting up of lesions of hitherto healthy viscera—already very numerous, Virchow having made 28 autopsies.
9. Remote complications ending fatally--several already noted.

As regards the diagnostic value of the lymph, he disparages it on the ground of its uncertainty, and the danger inseparable from the inoculatory process. He asserts that, in the immense majority of cases, ordinary clinical and bacteriological examination suffice amply to elucidate the true nature of tuberculous affections, and he opines that, even when these diagnostic means fail, it is wise to abstain from the employment of the lymph.

We still await the collective report of the committee appointed at St. Louis Hospital to study the clinical effects of the lymph. M. Vidal, one of its members, has made (Soc. de Dermatologie et de Syphiligraphie, January 15) an anticipatory report which reveals no new facts, excepting the supervention in the course of the treatment of myocarditis and endocarditis. Great caution has been observed in the dosage, each patient receiving only one-half milligram, and the dose being increased by the same quantity till the temperature reaches 102.2° F., an interval of from four to eight days being allowed between each inoculation.

At the Académie de Médecine (February 10) Professor Jaccoud reported the results obtained from the inoculation of guinea pigs with Koch's lymph. A robust Angora guinea pig, weighing 580 grams, received in two series of inoculations (separated by an interval of a week), and extending over ten and eight days respectively, a quantity of pure lymph equal to 50 centigrams. The only effect observed was a loss of weight of 26 grams. The day following the last inoculation the animal was inoculated over the right shoulder with one-half of a tuberculous gland furnished by another guinea pig. A month later the animal died, weighing only 450 grams. The autopsy revealed the presence of tuberculous glands in both axillæ, confluent grey tubercles in both lungs, hepatization of right apex, and caseous masses in the liver and spleen. The experiment was controlled by the simultaneous inoculation of a test guinea pig with the other half of the tuberculous gland. This animal has lost 88 grams in weight and has developed tuberculous glands in the axillæ, but he has already survived his Kochined comrade by six days. Dr. Dujardin-Beaumetz has likewise treated tuberculous guinea pigs with the lymph, but this treatment did not prevent the animals dying, as usual, when they had lost one-third of their weight. The same fatal result ensued in the case of Kochined guinea pigs inoculated subsequently with tuberculous virus.

The following inventory of the somewhat meagre library of a whilom practitioner, one Richard Hunot, "*en sou vivant médecin et bourgeois de Saint-Ouen de Caen*," may interest your readers. As a rendering into modern English of this curious document would deprive the Rabelaisian phraseology of its author of its native piquancy, I transcribe it *in extenso:*

Le 27 janvier 1609, Guillaume Le Bailly, sergent royal "fit enventaire par répertoire des lettres, pièces d'escriptures, ensemble de quelques livres demeurez du décez de deffunct M. Richard Hunot, d'aultant que j'en ay trouvé tant dens l'une des armares, ung buffet que dens ung petit coffret." L'inventaire etablit de nouveau l'excellente situation du défunt: quant à la bibliothèque, elle est bien peu volumineuse:

Item ung grand livre couvert de blanc, intitulé Les pourtraictz anatomiques de toutes les parties du corps humain, gravés en tailles douces;

Item ung autre grand livre couvert de rouge, intitulé Les œuvres de Anbroise Paré, conseiller et premier chirurgien du Roy;

Autre livre couvert de parchemin intitulé Les voyages du s' de Vilarnont;

Autre livre couvert de rouge intitulé Les institutions chirurgies de Jean Triganlt, docteur en médecine;

Autre vieil livre sans intitullacion commancant; puisque j'auray rendu graces à Dieu qui donne vie, etc.;

Autre petit livre intitullé Traicté de la nature et curation des plaies de pistollé et arquebouses;

Autre livre intitullé: La chirurgie mise en téorique et praticque;

Autre livre en latin intitullé Petit pontamy cecy burgensis (*sic*), etc.;

Item autre petit livre couvert de blanc intitulé Le guidon des apoticqvères;

Autre viel petit livre intitullé Le grand Albert.

According to the terms of a ministerial decree, dated January 1, 1891, all students of medicine and pharmacy throughout France are compelled, before their names are allowed to be entered on the rolls of their several faculties or schools, to produce a certificate of revaccination performed

under the control of the faculty or school at which the aspirant desires to prosecute his studies. This prophylactic measure is, moreover, rendered incumbent on students already on the books before they can take out further *inscriptions* (sixteen inscriptions are necessary for the doctorate). Apropos of this excellent regulation, I may mention that a strong current is setting in among French hygienists in favor of compulsory vaccination and even revaccination for all classes of society. The subject has been hotly discussed for the last few weeks at the Académie de Médicine in connection with the "depopulation" so-called of France. It is strange to hear such an enlightened personage as Professor Le Fort rejecting such a wise precaution as an infringement of the liberty of the citizen. On the other hand, Brouardel, Proust, Colin, Hervieux are all in favor of the primary and the secondary operations being rendered more vigorous in their application, rightly regarding the forcible isolation of variolous patients advocated by M. Le Fort as a greater violation of individual liberty than the innocuous and much more effective practice of vaccination.

The late Paul Loye maintained that decapitation put an immediate stop to all vital phenomena. M. Laborde had the opportunity of noting in the case of the notorious assassin of the process-server Gouffe, the occurrence of the following phenomena, the presence of which disproves the above assertion. Immediately after the execution there was noted marked corrugation of the forehead extending to the vertex; associated ocular movements; opening and shutting movement of the mouth of a respiratory type. The palbebral reflex could be plainly evoked for from fifteen to twenty minutes after decapitation, during which time the iris remained sensible to the stimulus of light. Simultaneously with the deposit of the trunk in the basket there were noticed up and down movements of the arms, plainly visible despite the fact that they were firmly ligatured to the sides. This phenomena is, it appears, well known to Deibler's assistants, who, in their figurative language denominate it "the flapping of the wings." The feet were strongly retracted, and when M. Laborde pinched the arm, the trunk being in the basket, a reflex movement was very apparent. As M. Laborde remarks, these reflex movements are strictly analagous to those perceived in the abattoirs, where the stimulation of a member immediately after felling produces a violent kick.

The Minister of War has decreed that each officer and private shall receive, in the event of mobilization, a field dressing to be carried in the inside pocket of his dolman, waistcoat or hood. The small packet, shaped like a flat pocket-book, is composed of: 1. An outer covering of cotton stuff; 2. An inner envelope of macintosh; 3. A cake of cotton wool rendered antiseptic by a previous steeping in a 1 per 1,000 solution of corrosive sublimate. This cake is wrapped up in gauze and can, if need be, be divided into two layers for a double dressing (entrance and exit wounds by bullets); 4. A small compress of silk gauze, also asepticised by sublimate; 5. A fragment of macintosh to prevent the drying of the dressings when applied; 6. A gauze bandage, also sublimated, six centimetres broad by 7 metres long; 7. Some safety-pins wrapped in paper and deposited between the two envelopes so as to prevent the metal being attacked by the sublimate.

While on the subject of antiseptics, let me record the first instance known in this country, so renowned for its *coiffeurs*, of a barber applying the principles of surgical cleanliness to the purifying of the weapons with which he assails the faces and scalps of hirsute humanity. The name of this perfumed emulator of Lister is not stated, but he applies his aseptic scissors, razors and brushes at Lyons. His razors are mounted in aluminium, the scissors are nickeled, the brushes being provided with bristles which are screwed on to the wood, thus avoiding the necessity for the employment of glue or stitches. After use, these instruments are well washed and then subjected to a temperature of 120° C. in an oven enclosed in a layer of glycerine heated by a range of gas jets.

Some time ago, the Board of Health of the Seine adopted, at the instance of M. Lancereaux, a resolution recommending similar precautions (the purifying of instruments used by hair-dressers by means of the flame of a spirit-lamp, and antiseptic solutions). This resolution has, I believe, remained a dead letter, and the public continues to run the risk of contracting various parasitic cutaneous diseases, not to mention syphilis, at the hands of "capillary artists" unacquainted with, or careless of, these dangers. All honor, then, to the pioneer of *fin de siècle* shearing who is the subject of this article! J. H. B.

NECROLOGY.

Dr. Hosmer Allen Johnson.

Dr. Hosmer Allen Johnson was born not far from Buffalo, N. Y., in a town called Wales. Here he lived until about 10 years of age, enjoying those advantages for early boy life which spring from a home filled with elevating influences, and from contact with the phenomena of rural nature. It was interesting to note how this early study of the beautiful in nature acted like a lofty education, and impressed itself on the whole tone of his mind. Near his early home there is a hill range of considerable height. Its

rocks are carved by streams into gorges, decorated with mosses and wild flowers and crowned with woods. Here the boy, Hosmer Johnson, used to wander and climb, studying the beauty of the views, and filling his memory with pictures which tinted all his after life and were never effaced by the larger views of other regions. Here he learned to love nature, and to realize how its magnificence typifies the glory of its Creator.

These sentiments never died out. On the contrary, they strengthened with his growth, and helped to form in him that pure and elevated taste which gave such a charm to his whole career.

It was this which caused him to select a scientific profession, as well as to study nature for a recreation. He traversed wild rivers in a canoe, sleeping in the forests; he climbed the White Mountains on foot, and rolling himself in a blanket, slept under the stars with a friend or two at his side. The same feeling led him to explore Switzerland, California, Colorado, and the mountains about Puget's Sound.

These memories prompted him when he assisted to found the Chicago Academy of Sciences and the Astronomical Society, and led him to say and do all he could to encourage the study of natural objects. Such results are worthy of thought at a period when the growth of cities is more and more shutting men out of nature. Perhaps if we could bring more children under the influences which molded the youth of Johnson, we would have more such men in after life.

At the age of about ten years he removed to Almont, Mich., and helped cut a farm out of the woods, at a time when wolves and Indians were far more abundant than civilized beings. During this period an attack of sickness left him with an irritation of the bronchial tubes which never fully left him, and caused many of his acquaintances to suppose for fifty years that he was on the verge of consumption. There was, however, not the slightest tendency to tuberculosis in any part of his body, but the pulmonary irritation subjected him to repeated attacks of pneumonia, and it was one of these which at last caused his death at the age of sixty-eight years. In his early manhood he expected only a short life, and scarcely dreamed of attaining the age which he finally reached.

In the year 1841 he entered an academy at Romeo, Mich., where he prepared for college, and then entered the University of Michigan, from which he graduated in 1849.

His educational career showed a remarkable talent for the acquisition of languages, both ancient and modern, and he studied Latin, Greek, Hebrew, French, German, Italian, and to some extent, Spanish. In his boyhood he also picked up, from the surrounding Indians, a considerable practical knowledge of the Ojibway tongue. Three years after taking his A.B. he received the degree of A.M., and at a later period that of LL.D.

After graduation he went to Chicago and commenced the study of medicine under the supervision of Prof. Herrick. In 1851 he became the first interne of Mercy Hospital, and in 1852 graduated in Rush Medical College. In 1853 he became a member of the Faculty, and continued with it until 1858, when he resigned. Not long after his resignation he united with a few others in founding the Chicago Medical College, in which he was a professor and trustee from the beginning to the day of his death, and was the first president of the faculty.

His zeal for the study of nature led him to become one of the founders of the Chicago Academy of Sciences, as well as of the Historical Society, and of the Astronomical Society.

He was for some years editor of the *Northwestern Medical Journal*, and afterwards a member of the City, State and National Boards of Health. During the war of the rebellion he was commissioned by the Governor, with the rank of Major, as one of the Board for examining surgeons and assistant surgeons for the Illinois regiments, and such was the faithfulness of the Board that the medical officers of Illinois were conspicuous in the whole army for their thorough knowledge, and their humane and skilful conduct on the field of battle. In examining assistant surgeons for promotion, he had to traverse the field of war, and his duties brought him occasionally under fire, at which times he showed his skill as an operator and as a manager of field ambulance service.

After the great Chicago fire, Dr. Johnson was one of the chief managers of the Relief and Aid Society, which distributed millions of dollars of property among the sufferers.

He married Miss Margaret Seward, a relative of the New York statesman, William H. Seward. He had two children, of whom only one survived him, Dr. Frank S. Johnson, Professor of Pathology in Chicago Medical College.

Dr. Johnson was much more than simply an eminent physician. He was a magnificent man, possessing a clear, trenchant intellect, and a great and noble heart. His reputation is without spot, and his honor without stain.

HOSMER A. JOHNSON.

OBIIT FEB. 26, 1891.

We mourn for him whose life has flown
Out from its fragile shell of clay,
Into the nightless, perfect day,
To reap the fruit that here was sown.

Not all the good of earth die young:
Of him no truthful tongue spoke ill;
And praises to his gentle skill
By twice ten thousand hearts are sung.

For him no banners drape the air,
No half-mast flags droop in the blue;
But tears shall fall as evening dew,
And science garb of mourning wear.

No need of shaft to mark the bed
Wherein his dust dissolves in dust—
Fair Science keeps her own in trust,
If they but walked where Nature led.

No nation honors those that stand
And battle with the living death—
The stalking plague and poisonous breath
More fatal than the foeman's brand.

No rifled gun nor keen-edged sword
Can reach the enemy he fought;
Death in its ghastliest form he sought,
Yet not for honor nor award.

'Twixt Death and human kind he stood:—
Let fame on such no longer frown,
For deeds of blood award no crown,
But rather for the doing good.

Man's friend he was; foes had he none
In fruitful youth or ripened age—
His life a clear and blotless page
Of noble deeds more nobly done.

No bias warped his balanced mind
To superstition ne'er a slave;
Let this be written o'er his grave:
"He gave his life to all Mankind."

Such men kind Nature ever needs
To reason from effect to cause;
Yet shows them only half her laws,
To spur them on to nobler deeds.

For these the stony paths she smooths,
And guides her children in the night,
While far beyond she hangs the light
That lures them on to greater truths.

What need his virtues to portray?
What need his memory to defend?
As patriot, healer, sage and friend
He walked in his Great Master's way.

WILLIAM G. EGGLESTON.

Springfield, Ill., Feb. 27, 1891.

SPECIAL CORRESPONDENCE.

An Act Pending in Congress of Interest to the Medical Profession.

To the Editor:—The chief provision and object of a measure now pending in Congress, and subject to action at an early date, is that requiring all articles publicly sold for consumption or use to show upon the container the nature, or name of the contents.

The Bill, having a strong and influential commercial backing, came near passing when first presented, and early in the session, but was made, with all other legislation, to give way for tariff politics. but not until it had aroused a furore of alarm among a class against whom it was not aimed, but were in its line of effect. These were proprietary, and the whole swarm of patent medicine frauds.

Is not this the time to see that these evils, enemies of the public—infinitely worse than an oleomargarine operator—do not escape the just application of so reasonable and *unassailable* regulation. Floods of the most potent and poisonous articles whose effects every practitioner is called to relieve, are sold with no evidence or means of judging its character, thus obliging us blindly to prescribe, or select an antidote.

The deadly results from the use of substances for food and medical purposes are becoming of alarming and increasing frequency.

No exceptions should be made in this Act now before Congress, and medical men are already discerning the penalties which torpor and inattention upon the part of the profession has incurred. The public robbed, swindled, and injured in health—not to say fatally imposed upon by the unrestricted and unchallenged purveyors of death and disease in the guise referred to. Medical men are held responsible for their dispensing by the files of the druggists, whose convenience in cases of carelessness or accident is often proven, while the veriest ignoramus may, under copyright protection, sell the most potent drug and disguise its character by any term he may chose to adopt.

H. C. MARKHAM, M.D.

Independence, Iowa, Feb. 19, 1891.

The Association of Military Surgeons of the Wisconsin National Guard.

To the Editor:—In response to a call from the Surgeon-General, N. Senn, for February 26, 1891, the surgeons of the Wisconsin National Guard met in Milwaukee for the purpose of organizing an association for the advancement of military and accidental surgery and to be called "The Association of Military Surgeons of the Wisconsin National Guard." The work of the Association will be clinical, experimental, original, etc., pertaining to military surgery. Surgeon-General Nicholas Senn was elected President; Major F. J. Wilkes, 2nd Reg. W. N. G., Vice-President; Lieutenant Ralph Chandler, 1st Light Battery W. N. G., Secretary and Treasurer.

The surgeons responded to a man. The Association has a membership of fifteen and will meet once every four months.

The day was spent very profitably in clinical work at the Milwaukee Hospital, Soldier's Home Hospital, and in demonstrative and experimental work in intestinal surgery and gun-shot wounds of the abdomen, on dogs, at the Milwaukee County Hospital. Each member was given an opportunity to exercise his skill in suturing intestinal wounds. At 8 P.M. the surgeons assembled at the Republican House, where an elaborate banquet was tendered by Surgeon-General N. Senn. Toasts were given and the wee small hours were long on their way ere the surgeons had fully vanquished the enemy.

All await with pleasure the announcement of the next meeting. It is hoped that this will be a stimulus to surgeons of other States to form similar organizations with a view of eventually calling a National one.

Efforts will be made to fill vacancies in the medical department of the W. N. G. as they occur, by a competitive examination.

RALPH CHANDLER,
Lieut. and Asst. Surg. 1st Lt. Battery, W. N. G.,
Sec'y and Treas.

Milwaukee, Feb. 28, 1891.

Shall The Journal be Removed to Washington?

To the Editor:—The arguments *for removal* are: 1. Our JOURNAL has a name distinctive of its nationality, and inasmuch as it represents, or is intended to represent the status of the medical profession of this country, it would seem as if its seat ought to be at the Capital, which, though not the geographical centre, is really the *centre* from which our whole system of National economy radiates. 2. The Library of the Association and the ever increasing National Library, and the Army Medical Museum are there, and always at hand for the use of the editorial department. 3. The Army, Navy and Marine-Hospital medical and surgical news are there and easily available. 4. National pride may say to many: "Place the National Journal in the National Capital."

Against removal: 1. THE JOURNAL, although born in Cleveland, O., was immediately taken to Chicago, where it was carefully nurtured during its infancy, and where it rapidly grew into its present state of vigorous adolescence. It has become acclimated to the soil of Illinois, and will for the present, other things being equal, no doubt do better there, and reach a vigorous manhood much earlier than if stunted by transplantation; no matter how well the new soil may be adapted to its reception. 2. The personnel of THE JOURNAL may be equally as good and efficient in Chicago as in Washington, and the removal of the material would be attended with a loss that cannot as well be afforded at present as in the future, especially if the management of its financial relations continues as successful in the future as in the past. 3. Chicago is much nearer the centre of our population than any Eastern city, and will continue for some years to become more so, and will annually get a larger increase to the subscription list of THE JOURNAL from the West, in proportion to present population, than from the East.

My conclusions are, after weighing carefully the arguments for and against, that as THE JOURNAL has made a phenomenally rapid growth in Chicago it should remain there. One of the fathers of the American Medical Association and the first editor of THE JOURNAL lives in Chicago. He is robed in honor; THE JOURNAL was his pet. Let it remain there, at least, while he lives.

E. GRISWOLD, M.D.

Sharon, Pa., Feb. 23, 1891.

To the Editor:—I can see nothing to be gained by removing THE JOURNAL to Washington, D. C.; while, on the other hand, by so doing you leave one of the best medical centres in the world, and take THE JOURNAL to the extreme border of its circulation, thereby depriving many of its readers of its reading for many days after publication. If there is any necessity for moving THE JOURNAL from Chicago, I would be in favor of St. Louis, or some equally good city located mid-Continent, and if I consult my selfish choice, Chicago is preëminently that choice.

A. F. HUNTOON, M.D.

W. Duluth, Minn., February 21, 1891.

To the Editor:—I have within the last week or ten days received two or three letters suggesting that the question of removing THE JOURNAL should be referred back to the Trustees, who have the power to act. And now comes the deponent, the *St. Louis Clinique* of February, 1891, who deposes and says, that "*we hope a motion will prevail to refer the question* BACK TO THE TRUSTEES." But he preludes that assertion by saying that "the Board was given full power to act: by its act THE JOURNAL was located in Chicago, and by its authority it could remain or be removed." Very good. But will the said deponent tell the Court, who gave said Board this authority? And tell us whether the same body which extended the power in the first place, cannot rescind that power, or take up any subject referred to the Board of Trustees, and modify it to suit their liking?

It is simply the old story of whether the dog shall wag his own tail or whether the tail shall wag its own dog? and that question was overwhelmingly settled at New Orleans a few years ago, on the question of adopting the report of the Committee on organizing the Ninth International Congress, which at that time tried to convince this same Association that they had *been given power* to *act*, and the dog must be wagged by the tail; but the dog protested against this, and the result was the *tail* was wagged instead of the dog.

So with this or any other committee of a representative body; that body has the power to take up any question it has referred to any subcommittee, and settle it to suit the majority, and the Trustees acted wisely, and in accordance with parliamentary law and common usage, and former precedents, when they referred the matter of removing THE JOURNAL from Chicago to Washington, back to the Association.

Each Permanent Member of the Association and subscriber is an interested stockholder in THE JOURNAL, to the amount of five dollars a year, and has a perfect right to give an expression as to where he wants THE JOURNAL he supports published, and this expression should be a *guide-board* to the coming delegates of the next meeting, to direct them in their deliberations, who alone have a right to speak officially on all questions that pertain to the interests of the Association.

Again, permit us to correct the statement of the *Clinique* which says that the Trustees "have recommended that the change be made." *The Trustees as a body have not made any such recommendation.* That is what a certain faction of the Trustees wanted them to vote, but failed to secure such recommendation, and hence the "great controversy" which, the *Clinique* says, "is now being carried on regarding the *proposed* removal of THE JOURNAL from its *home* in Chicago to Washington City."

R. HARVEY REED, M.D.

Mansfield, O., February 24, 1891.

To the Editor:—Relative to the removal of THE JOURNAL to Washington, D. C., I would say I can see no reason why it should not remain where it is, and think there are several valid reasons why it should.

WM. CASTON, M.D.

Spokane Falls, Wash., Feb. 25, 1881.

To the Editor:—You may add my vote to the Chicago column, relative to the site of your publication.

E. C. SPITZKA, M.D.

712 Lexington ave., New York.

To the Editor:—Why should THE JOURNAL go to Washington? The question is full of suggestion. Why should it have been established at Chicago? Clearly because it was a convenient centre, with no East and no West, whence it could most speedily communicate with all points.

Has it ceased to be our great central metropolis? Then Congress made a mistake in locating the world's greatest exposition.

Are paper, and ink, and printing presses no longer at its command, or are mailing facilities unequal to its demands, or have all the brains of the Nation gravitated to its Eastern slope?

We grant "the sun rises in the East to open and illume the day," but she travels westward, and at high noon is its beauty and glory.

Whilst Chicago will long remain the central metropolis of America and the most convenient home for its great medical journal, no one section, no one man, will absorb all majesty or power.

Why *should* THE JOURNAL go to Washington?

W. L. SCHENCK, M.D.

Topeka, Kan., Feb. 28, 1891.

To the Editor:—Leave THE JOURNAL where it properly belongs, in the business and population centre of the country—Chicago, Ill.

G. L. PRITCHETT, M.D.

Fairbury, Neb., February 27, 1891.

To the Editor:—I have heard and read many convincing reasons why THE JOURNAL may with advantage to the whole profession be edited and published in Chicago; but have so far failed, in answer to my enquiries, to discover any justification for its taking up house at the Capital.

It appears to me that the very advance guard of the Washington attack has not yet appeared in sight. In the meantime I suppose it is proper for us to know that when it does come to a comparison between the two cities as teaching centres, as sources of subscription, as sources of advertising patronage and as centres of medical population, most of them who cannot be accused of partizanship, and who are quite as much interested as we are, will decide at once in favor of Chicago.

In the meantime, will some promoter of the Washington scheme kindly give us a *résumé* of the superior advantages, temporal and spiritual, which THE JOURNAL is to enjoy after its advent in Washington?

But perhaps these are to be held back until the well-known hospitality and patriotic associations of the Federal city shall have had an opportunity to work their charms.

Still, in spite of these seductions, I expect, in common with the majority, to cast a vote for Chicago.

CASEY A WOOD, M.D.

Chicago, Ill., Feb. 25, 1891.

To the Editor:—As an humble member in the rural ranks, I wish to enter my solemn protest against the removal of THE JOURNAL. Such an experiment would be child's play. W. M. LEWIS, M.D.

Greensburg, Ky., Feb. 28, 1891.

MISCELLANY.

THE PHILADELPHIA POLYCLINIC.—At the annual meeting of the corporators of the Philadelphia Polyclinic held on January 12, 1891, the following new members were elected: John L. Wilson, James Hay, James P. Scott, Mrs. Thomas A. Scott, Mrs. Wm. Waldorf Astor, Roland B. Whitridge, M. D., Mrs Matthew Baird, Mrs. Elizabeth H. Farnum, Dr. Thomas S. K. Morton, George W. Childs, Mrs. Moses Brown, H. H. Houston, Mrs. Isaac B. Thorn, and Rev. Wm. Neilson McVickar.

At the same meeting the Board of Trustees for 1891 was elected as follows: Charles K. Mills, John B. Roberts, Charles B. Baeder, Rev. G. Woolsey Hodge, H. H. Wilson, Rev. Wm. Neilson McVickar, Henry Leffmann, J. Henry C. Simes, Caleb C. Roberts, Hon. Wm. N. Ashman, Thos. S. K. Morton, H. Augustus Wilson.

MEETINGS OF MEDICAL SOCIETIES FOR 1891.—We are indebted to the *New York Medical Journal* for the following list of National and State Medical Societies, and the places and dates of their meetings for the current year.

For the convenience of those who may desire to consult it, we reproduce the list entire:

Florida Medical Association, Pensacola, April 14 and 15.

Medical Society of the State of Tennessee, Nashville, April 14, 15 and 16.

Medical Association of the State of Alabama, Huntsville, April 14, 15, 16 and 17.

Medical Asssociation of Georgia, Augusta, April 15, 16 and 17.

Iowa State Medical Society, Waterloo, April 15, 16 and 17.

Medical Society of the State of California, Sacramento, April 21, 22 and 23.

Medical Association of Montana, Helena, April 24 and 25.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 28, 29 and 30.

Texas State Medical Association, Waco, April 28, 29 and 30, and May 1.

State Medical Society of Arkansas, Hot Springs, April 29 and 30 and May 1.

Medical Society of the State of Washington, Seattle, May 6, 7 and 8.

Missouri State Medical Association, Excelsior Springs, May 12, 13 and 14.

Indiana State Medical Society, Indianapolis, May 13, 14 and 15.

Kansas Medical Society, Wichita, May 13, 14, 15 and 16.

Illinois State Medical Society, Springfield, May 19, 20 and 21.

West Virginia State Medical Society, Fairmount, May 20, 21 and 22.

North Carolina State Medical Society, Asheville, May 26, 27 and 28.

Connecticut Medical Society, Hartford, May 27, 28 and 29.

Pennsylvania State Medical Society, Reading, June 2, 3, 4 and 5.

State Medical Society of Wisconsin, Madison, June 3, 4 and 5.

Delaware State Medical Society, Rehoboth, June 9 and 10.

Maine Medical Association, Portland, June 9, 10 and 11.

Massachusetts Medical Society, Boston, June 9 and 10.

South Dakota State Medical Society, Chamberlin, June 10, 11 and 12.

Rhode Island Medical Society, Providence, June 11 and 12.

Michigan State Medical Society, Saginaw, June 11 and 12.

New Hampshire Medical Society (centennial) Concord, June 15 and 16.

Colorado State Medical Society, Denver, June 16 and 17.

Ohio State Medical Society, Put-in Bay, June 17, 18 and 19.

Minnesota State Medical Society, Minneapolis, June 18, 19 and 20.

Medical Society of New Jersey, Long Branch, June 23 and 24.

Vermont State Medical Society, Burlington, October 15 and 16.

Mississippi Valley Medical Association, St. Louis, October 14, 15 and 16.

Tri-State Medical Association of Tennessee, Alabama and Georgia, Chattanooga, October (date to be fixed).

Medical Society of Virginia, Lynchburg, October 27, 28 and 29 (subject to change).

New York State Medical Association, New York, October 28, 29 and 30.

Louisiana State Medical Society (place and date to be determined).

NATIONAL ASSOCIATIONS.

American Academy of Medicine, Washington, May 2 and 4.

American Medical Association, Washington, May 5, 6, 7 and 8.

National Association of Railway Surgeons, Buffalo, N. Y., April 30 and May 1.

American Gynecological Society, Washington, September 15, 16 and 17.

American Orthopædic Association, Washington, September 15, 16 and 17.

American Association of Andrology and Syphilology, Washington, September 22, 23 and 24.

Congress of American Physicians and Surgeons, Washington, September 22, 23, 24 and 25; in connection with this congress will be held the meetings of the American Climatological Association, American Ophthalmological Society, American Otological Society and American Neurogical Association.

American Dermatological Association, Washington, September 22, 23, 24 and 25.

American Surgical Association, Washington, September 22, 23, 24 and 25.

American Laryngological Association, Washington, September 23, 24 and 25.

Southern Surgical and Gynecological Association, Richmond, November 10, 11 and 12.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from February 21, 1891, to February 27, 1891.

Capt. Alonzo R. Chapin, Asst. Surgeon, leave of absence granted in S. O. 17, Dept. of Dak., January 31, 1891, is extended one month. By direction of the Secretary of War. S. O. 41, A. G. O., February 20, 1891.

Lieut. Col. Blencowe E. Fryer, Asst. Medical Purveyor, having been found incapacitated by Army Retiring Board, on account of disability incident to the service, is, by direction of the President, retired from active service this date, under the provisions of Section 1251, Revised Statutes. Par. 15, S. O. 42, A. G. O., February 24, 1891.

The following named officers, having been found by Army Retiring Boards incapacitated for active service on account of disability incident to the service, are, by direction of the President, retired from active service at this date, under the provisions of Section 1754, Revised Statutes: Capt. John de B. W. Gardiner, Asst. Surgeon; Capt. Robert W. Shufeldt, Asst. Surgeon. Par. 12, S. O. 43, A. G. O., Washington, February 25, 1891.